

AS THE SNAKE SHEDS ITS SKIN:  
THE REVOLUTIONARY ART AND SCIENCE OF ALEXANDER BOGDANOV

A Dissertation

by

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## ABSTRACT

This dissertation presents the life and work of Alexander Bogdanov, a revolutionary public intellectual in Russia at the turn of the twentieth century. I begin with Bogdanov's living experience, situating his theoretical interventions in the political and intellectual context of his time. Then I introduce Bogdanov's unique Marxist approach to systems science, or "tektology," which Bogdanov thought of as a new "organizational point of view" that would synthesize all historical knowledge and create theoretical tools for revolutionary transformation of human social systems. In particular, I look at how Bogdanov applied systems science to questions of communication and culture, including his labor theory of speech, his structural-analogical model of base and superstructure correlations, and his grand narrative of progressive development from authoritarianism through anarchy and into socialism. Lastly, I offer a close reading of Bogdanov's lesser-known science fiction novel *Engineer Menni*, which Bogdanov presented as an analogy to the situation faced by socialists in the epoch of monopoly capitalism, and which offers insights into the characteristics of Bogdanov's distinctive cultural and political theory of social change.

## DEDICATION

To all my comrades, whoever they may be.

## ACKNOWLEDGEMENTS

The infinite, intensive, and internal flights of thought that belong to intellectual labor have an isolating, individualizing tendency. This singular intensity is captured by Constantin Meunier’s statue “The Philosopher,” which attempts to reconcile the tremendous labor of concentration with the apparently immobile and thus nearly imperceptible surface of the worker’s body. To Alexander Bogdanov, Meunier’s statue was a beautiful resolution of the contradiction between the physicality of work and the unseen of thought, but the work failed in one respect: “one does not feel, or only very vaguely – almost imperceptibly – feels the connections that merge the effort of his thoughts with the physical and spiritual efforts of millions of workers, each of whom work as a link within the world chain of labor.”<sup>i</sup> If the idea of a solitary author still conjures this image of solitary thought, there is on the other hand a testimony in citations, by which we become partially accountable to our debts, and in our acknowledgements, which are meant to close the gap. Here we express our gratitude to those whose efforts are not captured in the text, but without whom the text would not exist.

I am grateful to my partner Jess Havens, for the living proof that deep mutual understanding between people is not a utopian dream; it is the intimate joy of looking out at the same horizon and hearing your thoughts organized in the voice of another. Likewise, my dear friends and comrades, Kate Siegfried, Robert Stephens, and James Ponce, have kept my attention

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<sup>i</sup> Alexander Bogdanov, *Art and the Working Class*, (Iskra, 2022) 93

focused on a common political horizon, calling upon me to give according to my abilities, and nothing less. Thank you to my parents, Lori and Mark Champine, for a lifetime of support, significant and subtle, and most recently for months of helping to care for my daughter, Frankie. Thank you to Anna Wolfe for her relentless and infectious optimism of the will. Thank you to Josh Dicaglio, whose course on cybernetics and information theory renewed my interest in this topic. Thank you to Nathan Crick for believing in this project, though the many zigs and zags. Thanks to Kristan Poirot for helping bring the project to a close. Special thanks to David Rowley for sending me his translations of Bogdanov's *Empiriomonism: Essays in Philosophy, Books 1-3*, and *Towards a New World: Articles and Essays, 1901-1906*. Neither book is affordable on a graduate student salary, and both are essential for a deep understanding of Bogdanov's philosophy and intellectual development.

The list can only ever be partial. To quote the rapper milo, "I'm going to ask my heroes about their debts today. And which ones exactly they've left unpaid." Doubtless, even in a work that doesn't pretend to heroism, there will be many unpaid debts. I trust that you know who you are.

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## CHAPTER I

### INTRODUCTION

The working class carries out the organization of things in its labour, and the organization of its human forces in its social struggle. It must connect the experience of both fields into a special ideology; namely, the organization of ideas.<sup>1</sup>

Ideology is an instrument for organizing economic life, and it is consequently an important condition in economic development.<sup>2</sup>

Any organisation is organised precisely to the extent that it is integrated and holistic. This is the necessary condition for viability.<sup>3</sup>

Just as natural science had earlier served as a tool of scientific technique, now Universal Science became a tool in the scientific construction of social life as a whole.<sup>4</sup>

“But are there no restrictions on the consumption of goods?”

“None whatsoever. Everyone takes whatever he needs in whatever quantities he wants.”<sup>5</sup>

In Alexander Bogdanov’s science fiction novel *Red Star*, the reader discovers a communist society on Mars where Karl Marx’s famous slogan has finally been realized: “from each according to his ability, to each according to his needs!”<sup>6</sup> The Martian Institute of Statistics monitors the flow of goods and working hours and produces information displays at the factories. Workers use the displays to choose where and how long they want to work, making contributions where they are most needed and best suited for the job. Touring the red planet, the protagonist, Leonid, learns that the socialist system on Mars has changed not only economic relations but cultural life as well. At the “Children’s Colony,” he is surrounded by “throngs of large-eyed children-of which sex it was impossible to tell, for boys and girls were dressed identically.”<sup>7</sup> With the revolutionary overthrow of the “enslavement of women in the home”<sup>8</sup>

long since accomplished, this gender-neutral appearance is largely true among the adults as well. At the Museum of Art, Leonid is told that most art is not kept in museums but found instead in the buildings that house public meetings, leisure activities, and research facilities. Museums themselves are a kind of research facility for studying the progress of aesthetic forms such as the transition from pre-socialist times, in which Martians constructed monuments to great people, to the present epoch in which “they dedicate them only to important events.”<sup>9</sup> But even this marvelous society is no utopia: “True, peace reigns among men, but there cannot be peace with the natural elements.”<sup>10</sup> Intense exploitation of the natural world disturbed the climate, endangered access to natural resources, and put the food supply at risk. With each new stage in the conquest of life comes new contradictions.

*Red Star* was published in 1908, and the story is set “early in that great upheaval that continues to shake our country,”<sup>11</sup> the revolutionary struggle to overthrow tsarist autocracy and found a new Russia. This dramatic context was drawn directly from Bogdanov’s living experience. In 1905, the revolutionary spark came on January 3rd with a strike at the Putilov Works in St. Petersburg. The strike had been organized by Father Gapon and the Assembly of Russian Factory and Mill Workers of St. Petersburg; as it spread throughout the city, the Russian Social Democratic Labor Party (RSDRP) joined the movement and called on all workers to participate in a general strike to prolong the struggle. Bogdanov was then the highest-ranking Bolshevik in Russia, and he met with the St. Petersburg committee to determine their course of action. He decided to carry an RSDRP banner to unfurl upon confrontation with the police, and to arm party members with guns for self-defense. On January 9th, they marched with the procession to the Winter Palace, and on that “Bloody Sunday” the authorities opened fire on the

crowd “killing at least 130 people and wounding several hundred.”<sup>12</sup> With that, the 1905 Revolution had begun. Among the professional revolutionaries, Bogdanov would be at the forefront.

Initially, the collection of workers, peasants, and revolutionary intellectuals had made some remarkable advances, but the revolutionary optimism of January would not last through December. The tsar was forced to make concessions to the liberal parties, granting a broader range of civil liberties by expanding freedom of speech, press, and assembly, and even instituting an elected legislative body, the Duma. Tsar Nicholas II had been instructed by his advisers that such reforms were the only alternative to military dictatorship, and his top military advisers believed that in present conditions the disgruntled military might not be willing to carry out the mass repression needed to quell the general strike. The popular assemblies where the masses participated in this uprising were called “soviets”—the Russian term for “councils”—and they spread throughout the country, taking the St. Petersburg Soviet as a model. In at least fifty other cities, workers were inspired to form soviets of their own. They published newspapers, organized militias, distributed food, and organized strikes.<sup>13</sup> The Bolsheviks purchased a newspaper, which by the end of October had reached “a circulation of 80,000 copies, an unprecedented figure for the times.”<sup>14</sup> Momentum seemed to be with the soviets, but in truth the reforms had effectively split the popular movement by satisfying the constitutional demands of the liberal intellectuals, who proceeded to abandon their working class allies. In St. Petersburg, the tsarist government arrested the entire Soviet Executive Committee. Workers and peasants were terrorized by the ultra-nationalist and antisemitic pogroms of the Black Hundreds. The wave of strikes declined by more than two thirds from 1905 to 1907, and soon dwindled from a high of 1.8 million strikers in

1905 to merely four thousand by 1910.<sup>15</sup> The tsar had appeased the liberals, arrested the socialists, and ruthlessly repressed workers and peasant rebellions by flogging, shooting, and hanging the agitators.

When Bogdanov began work on *Red Star*, a revolutionary fervor was still palpable just under the surface of daily life, despite the crushing blow that the tsar had dealt the workers' movement. *Red Star* is a utopia, but as Kenneth Burke has observed, many of the early "proletarian critics" of literature preferred a realist style, interpreting utopian literature as an escape from reality.<sup>16</sup> Indeed, they took their cue from Lenin in this regard, who argued that Bogdanov's literary talents would be better spent illustrating the real and present evils of capitalism rather than the fantasies of future communism. After the defeat of 1905, it is easy to believe that Russian workers would have been open to the reprieve of fantasy rather than confronting their harsh reality. But there is another side to the story. The more utopian literature carries us up and away, says Burke, the more likely we are to look back upon daily life as grotesquely contradictory and needing transformation. The comparison between Martian life and the bloody tumult of Russian society was certainly striking. As Richard Stites notes in the introduction to *Red Star*, "A rank-and-file Bolshevik of the period recalled that he and his comrades read Bogdanov's novel with enormous enthusiasm and saw it as a sign of renewed and triumphant revolutionary upheaval."<sup>17</sup> In a moment when the socialist movement had been disorganized and defeated, *Red Star* was Bogdanov's artistic call to regroup and prepare as the revolution was "approaching its inevitable, fateful conclusion." He hoped and believed that fateful conclusion was revolution.

The protagonist of *Red Star*, Leonid, is a Russian socialist, clearly modeled after Bogdanov's own life and experience: "Although I [Leonid] was but 27, I was numbered among the 'old' party workers. I had six years of service behind me, the only interruption being a year of prison. I had sensed the approaching storm earlier than many, and I greeted it more calmly than they when it came. I was forced to work much more than previously, but I did not abandon either my scientific pursuits or my literary endeavors."<sup>18</sup> Indeed, by 1905 Bogdanov had been a socialist for several years, and his leadership role in the RSDLP required a great deal of party work. He had also served prison time for his activism, and he was exiled from the cities on more than one occasion. Like Leonid, though, Bogdanov's party work and prison terms had not kept him from his scientific and literary work. During his prison term in 1905-06, Bogdanov revised the ninth edition of his *Short Course of Economic Science* and wrote book three of his major philosophical statement, *Empiriomonism*. Only his service in the First World War (WWI) could slow down his writing, and even then he quickly resumed after recovering from a year on the front line. Leonid's mission on Mars was to learn and transmit the knowledge of an advanced socialist society to the revolutionaries of Earth, and after the 1917 Revolution many Bolsheviks really did look to the society Bogdanov sketched in *Red Star* for inspiration.<sup>19</sup> Soviet Russia was hardly the incarnation of Bogdanov's utopian imagination, but *Red Star* had predicted that too.

As the people of Mars decided how to overcome the over-exploitation of their natural environment, a situation rapidly approaching crisis, they debated the prospects of drawing new energy from Earth. The ideal program for Martian colonization of Earth called for an "immediate socialist reeducation of the peoples of Earth," but not everyone believed this to be feasible.<sup>20</sup> Despite many favorable conditions among a proletariat struggling for socialism, the political and

national divisions on Earth would require “not one, but a multitude of revolutions taking place in different countries at different times.”<sup>21</sup> Each revolutionary situation presents the working class with an opportunity for victory and progress, but also, and perhaps more often, the risk of a crushing defeat. As one elder Martian predicted, “the individual advanced countries in which socialism triumphs will be like islands in a hostile capitalist and even to some extent pre-capitalist sea.”<sup>22</sup> They will suffer attacks not only from foreign capitalist powers but also from the defeated propertied classes. What, then, will become of these islands of socialism? They “will be perverted deeply and for a long time to come by years of encirclement, unavoidable terror and militarism, and the barbarian patriotism that is their inevitable consequence.”<sup>23</sup> In this grave prediction, Bogdanov had foreseen the precarity, intensity, and brutality of socialism in one country nearly a decade before the 1917 Revolution ushered in first attempts at constructing a socialist society on Earth. The fate of Soviet Russia did not belong to individual leaders even at the height of their personal power, but to the strengths and weaknesses of the whole working-class movement as it confronted this moment in history.

In the 2020s we are living through another great upheaval, and communication scholars are wondering aloud what place we have in the struggle for a better world. As the human environment, our technology, and our economy change, so our culture must change. We must shed the Old Culture like the snake sheds its skin, or we will surely suffocate and die. Less metaphorically, if we do not overcome the strictures of the Old Culture, the development of our technology and economy will be constrained, and we may fail to adequately adapt to the changes in our environment. This was the basic framework that Bogdanov used to interpret historical change—all the more obvious as humanity hurtles toward the climate crisis with little hope of

steering a new course. We are no less in desperate need of a cultural revolution in our time as in his.

Although Bogdanov failed to bring about his vision of the New Culture in his lifetime, we can learn from his lifelong effort to theorize the modes by which it might be brought about. In both art and science, Bogdanov worked toward the creation of a proletarian culture that he believed would radically transform the world as we know it. Bogdanov's descriptions of a utopian communist society in *Red Star* and the state capitalist transition period in *Engineer Menni* attempted to provide a roadmap to this harmonious, cooperative, and emancipatory future society. His works of organizational science, culminating in the *Essays in Tektology*, were an initial foray into constructing a proletarian worldview grounded in unified science. Bogdanov was a pioneer of the art and science of cultural revolution, and by retracing his footsteps, we learn something about where to go from here.

For instance, in the final pages of *Engineer Menni*, we find expressed the purpose of Bogdanov's "tektology," his universal science of organization. The proletarian engineer, Netti, begins the process of developing a universal proletarian science. His objective is to synthesize all modern science, to make it simpler and more harmonious, and to make it accessible to the broadest possible audience. In a meeting with trade unionists, an agitated worker asks if the time will ever come when workers can "see and know," not only "believe, believe, believe." For this worker, the choice to believe this authority or that was the choice of a slave among masters. Netti developed his universal science to abolish this slavery and bring about an era of self-governance, the like of which was never known before. Bogdanov desired his own writing to pick up in real life where his protagonist left off.



My interest in Bogdanov's proletarian science is in exploring the social theory that led up to this project. I am less concerned with the validity of specific claims made in the *Essays in Tektology* or in comparing them with similar intellectual projects that followed, such as Cybernetics and General Systems Theory. In my view, Bogdanov's tektology attempted to provide a fitting response to his rhetorical situation, as he understood it. Thus, my goal is to outline Bogdanov's social theory and, in so doing, explain his understanding of the historical and rhetorical situation he found himself in. When Bogdanov's social theory has been clearly explained, tektology should appear like the necessary answer to a well-defined question. Bogdanov's living experience as refracted through his social theory is what constrained the way he posed this question. Thus, because *Engineer Menni* provides an analogy to the historical situation of Russia as Bogdanov understood it in 1913, I continue this exploration of Bogdanov's social theory through a close reading of this fictional text. This narrative illuminates Bogdanov's motives for creating tektology in the unresolved tensions within his philosophy and their political implications.

### **Bogdanov's Place in Intellectual History**

Alexander Bogdanov (1873–1928) was a physician and philosopher, a novelist and natural scientist, an economist, sociologist, and elected leader of the Russian Social Democratic Labor Party (RSDLP).<sup>24</sup> His first book, *A Short Course of Economic Science*, was reviewed by Vladimir Lenin in the socialist press and declared the best of its kind in Russia. Together, Lenin and Bogdanov co-founded the Bolshevik faction of the RSDLP and served as its leading elected representatives through the tumultuous years of the 1905 Revolution. In philosophy, Bogdanov worked closely with Anatoly Lunacharsky, who introduced him to the work of Ernst Mach.

Funded by the radical novelist Maxim Gorky, Bogdanov organized and taught at schools for revolutionary workers in 1911 and 1912. During WWI, he served as a physician and junior surgeon at the front. After the 1917 Revolution, he became a leader in the Proletarian Cultural-Educational Organizations, or Proletkult, an organization of nearly half a million members in which Bogdanov promoted the cause of proletarian science and publicized his tektological research. In his final years, Bogdanov pursued a visionary program in biology, establishing the Institute for Blood Transfusion in 1926, where he tragically died as the result of an experiment just two years later. At his funeral, Nikolai Bukharin declared that Bogdanov was “undoubtedly one of the greatest and most original thinkers of our time.”<sup>25</sup>

This dissertation reflects on the role of culture and communication intellectual history of the unity of science told from the perspective of a twentieth-century Russian Marxist who has had little influence on contemporary organization and communication theory. Given the attitude toward idealism in Marxist philosophy, it may seem unusual to write an intellectual history of a Marxist philosopher. Idealism, the view that ideas *come first* in the development of world history, that ideas are the prime movers, is what Marx supposedly “inverted” in the Hegelian dialectic to forge a new materialist dialectic. To write intellectual history would seem to situate me squarely in this terrain. After all, who would choose to write about the passive results of history rather than the active causes? On the contrary, I believe that writing the history of a Marxist intellectual is all the easier for the constant reminder to avoid lapsing into idealism. Moreover, it is only a caricature of Marxism that dismisses the importance of ideas; for nearly a century, Marxist theoreticians, Bogdanov among them, have continued to deepen our understanding of ideology and communication.

Why should we care about Alexander Bogdanov's story? In my view, Bogdanov is distinguished for being among the earliest theorists of what is now called systems thinking and for contributing to this field from a revolutionary Marxist perspective. Systems theory and cybernetics have long been understood as "Western" inventions, closely allied as they were with military research and development in the United States, while emphasizing consensus over conflict models in sociology. By returning to Bogdanov, we find that cybernetic concepts like "feedback" or the systems theoretical emphasis on "equilibrium" were not characteristically "Western," anti-revolutionary, or anti-ideological. For Bogdanov, the universalism of organization science was proletarian universalism, and the science was proletarian science.

Moreover, Bogdanov also shared a great deal in common with the intellectual movements of his time, both in terms of his influences and arguments. The historian Robert H. Wiebe demarcates the period from 1877 to 1920 as "the search for order" that made the modern United States: a search pursued among Progressive Era reformers by means of administration and bureaucracy—the central elements of "scientific government."<sup>26</sup> Mass communication technologies, another important avenue for achieving social order, were also being developed during this period, as was a nascent communication theory. According to John Durham Peters, the theoretical problems of communication were first formulated explicitly in the 1880s and 1890s, and the "First World War...proved that symbols are not just aesthetic ornaments but prime movers of social organization."<sup>27</sup>

The twentieth century saw an upsurge of scientists and intellectuals beginning to speak, write, and organize themselves to tackle the problems of specialization and synthesis. By the end of the 1920s, many of the major problems and positions in communication theory had been

identified by philosophers and intellectuals from Europe and United States, and from representatives of each of the major political perspectives: socialism, liberalism, and fascism. In 1925, for instance, the philosopher and mathematician Alfred North Whitehead argued that after a century of specialization in scientific disciplines, the transformation from amateurs to professionals was complete. However, he cautioned, the “transformation of the field of knowledge, which has thus been effected, has not been wholly a gain.”<sup>28</sup> The new division of labor was more undeniably more efficient, but in Whitehead’s judgement it lacked for balance. Specialization had created a society of “minds in a groove,” a situation in which “progressiveness in detail only adds to the danger produced by the feebleness of coordination.”<sup>29</sup>

Bogdanov’s quest for unity anticipated movements of thought that would become central in the coming decades. Beginning in the “long” sixteenth century, the Capitalist Revolution, the Scientific Revolution, and the Industrial Revolution combined to accelerate the pace of technical progress at breakneck speed, and with technical progress came an increasingly complex division of labor in science and society. The social division of labor has existed from the earliest periods of human history, but specialization progressed slowly at first. In the ancient world, the organization of work grew in complexity with the development of early crafts such as pottery, weaving, and metallurgy. The development of technology facilitated the growth of exchange relations, supporting the emergence of full-time artisans who could now earn their means of subsistence through trade. Cities were established and small industries became possible, in which the stages of production could be further divided into sub-specialties. With the advent of machine production and the factory system in the late eighteenth century, the accumulation of capital grew to unprecedented heights, as did the variety of productive techniques and

commodities for sale. In the twentieth century, craftwork was divided into the simplest conceivable tasks. Specialization in modern science and society had been a source of great progress, but it also created a sense of fragmentation and triviality, and intellectuals searched passionately for a new synthesis.

As Bogdanov saw it, the future called out for an “integration of humankind,”<sup>30</sup> “synthetic collaboration,”<sup>31</sup> and a “universal organizational science.”<sup>32</sup> In the early and mid-twentieth century, several conferences, organizations, and intellectual movements were formed to pursue such goals. Logical Empiricists of the “Vienna School” came together with American Pragmatists of the “Chicago School,” among others, at International Congresses for the Unity of Science and the Institute for the Unity of Science to produce an *Encyclopedia of Unified Science* in the 1930s.<sup>33</sup> Physicists, mathematicians, psychologists, anthropologists, and linguists gathered for the Macy Conferences on Cybernetics from 1941 to 1960 and formed organizations such as the American Society for Cybernetics. Biologists, economists, and psychologists joined forces in a meeting of the American Association for the Advancement of Science to form the Society for General Systems Research. In its most institutionalized expression, a Science Council on Cybernetics was formed under the auspices of the Soviet Academy of Sciences in 1959, which organized cybernetic research nationwide and across a variety of disciplines through the 1980s.<sup>34</sup> But before any of these movements, members of the Proletarian Culture Organization, or *Proletkult*, began to pursue these aims under the influence of Bogdanov as early as 1918.

Bogdanov’s investigations into the nature of language and speech also were prophetic of coming research. The problem of communication was first isolated as a particular focus of research in the late nineteenth and early twentieth centuries, and questions of language began to

take center stage in philosophy. At the same time, there were several attempts to construct a general science to unify the natural and social sciences under a single program. In Vienna, the logical empiricists, or “logical positivists” as they came to be known in the United States, pursued both simultaneously in their linguistic philosophy of science and their movement for the unity of science. Though Ludwig von Bertalanffy was not a member of the Vienna Circle, the same milieu produced his General Systems Theory (GST). In the United States, Norbert Wiener’s Russian father was a polyglot and philologist, and Wiener’s Cybernetics proclaimed to be a science of communication and control.

Indeed, Ludwig Bertalanffy’s GST and Norbert Wiener’s Cybernetics were particular outgrowths of this interest in communication. For the small group of researchers who rediscovered tektology in the 1980s, it seemed obvious that there must be a connection. After all, the *Essays in Tektology* was published in German before Von Bertalanffy published anything about GST. Not only that, but the author of *Tektology* was a central figure in the philosophical debates that brought Von Bertalanffy’s Viennese compatriots in the Ernst Mach Society and the Vienna Circle to the consciousness of international revolutionary politics. In the United States, Wiener’s cybernetics can be connected to Vienna too, through the influence of William James and John Dewey. More importantly though, cybernetics and tektology discovered some of the same fundamental formal laws. Most notably, the concept popularized by cyberneticians as “feedback” had appeared in tektology as the “bi-regulator.” In neither case, however, is there any concrete evidence that tektology influenced later systems theory; it appears instead to be a classic case of multiple invention. A forgotten precursor, Bogdanov’s journey and distinctive approach

to a unifying science and society is the whisper of another world, the past as prologue for another future.

What distinguished Bogdanov from his successors, however, is his consistent and thorough focus on the importance of collective experience as both resource and method. As David Rowley explains in his editor's introduction to the *Philosophy of Living Experience* (in Russian, *Filosofia zhivogo opyta*), the Russian term "opyt" can be translated as "experience," but also "practice," "experiment," or "test."<sup>35</sup> Bogdanov's thought was, and should continue to be, an experiment in advancing class struggle according to the democratic method. The global dimensions of this struggle have grown ever clearer over the past four hundred years as the far reaches of human society have become increasingly interconnected and interdependent. Modern industrial society has confronted its shared struggle with nature in the form of global pandemics for at least a century, and the struggle has never appeared so sharply as it does in the twenty-first century, the era of climate crisis. To prove its relevance today, Bogdanov's thought must ultimately be put to the test. It will be verified or rejected not in abstract reflection but in action, and only to the extent that it provides a tool for the living human collective.

### **Bogdanov's Works**

Alexander Bogdanov was a prolific writer and premier Russian social theorist at the turn of the twentieth century, but unlike Lenin, Bukharin, and countless other Russian Marxists, the name Bogdanov is only faintly remembered. Since the late 1950s, however, a recovery project has been underway. In fits and starts, Bogdanov's legacy is being revived, with over 150 books and articles produced by Western academics since 1958. In 1978, K. M. Jensen published *Beyond Marx and Mach*, the first systematic treatment of Bogdanov's *Philosophy of Living*

*Experience*; in 1998, a comprehensive bibliography of Bogdanov's works was compiled by John Biggart, Georgii Gloveli, and Avraham Yassour, greatly facilitating future research (see References); and in 2018, James D. White published *Red Hamlet*, the first comprehensive biography of Bogdanov's life and intellectual development. Presently, Evgeni V. Pavlov and David G. Rowley are editing a ten-volume series of Bogdanov's works to assemble a Bogdanov Library for Brill's Historical Materialism series, which will continue to increase the accessibility of Bogdanov's thought for a global audience in the coming years. As of 2023, the Bogdanov Library has published three volumes of Bogdanov's work, adding to the five previously existing translated books for a total of eight English-language volumes. These may be roughly divided into four groups: political economy, philosophy, fiction, and tektology.

#### *Political Economy*

*A Short Course on Political Economy* was published by the Communist Party of Great Britain in 1922. As the title suggests, the book is an introduction to Marxist political economy. Originally written in 1897, *Short Course* was meant to serve as the textbook for a small study circle. Bogdanov found that the available textbooks were insufficient, and the first edition of Marx's *Capital* too difficult and burdened with Hegelian terminology. Besides, a textbook should correspond to the interests of the students, and Bogdanov had paid careful attention to the sometimes wandering discussions of his pupils. He discovered that "[i]n these discussions certain tendencies kept appearing, all of their own accord, and a definite direction began to emerge, which prompted the searching mind of the young lecturer to seek to connect as links in a complex chain of development phenomena relating to technology and economics with their concomitant forms of spiritual culture.<sup>36</sup>" In response, he wrote a clear, historically organized



textbook that explained the links between these topics—technology, economy, and ideology—from a Marxist perspective. Despite being “ruthlessly mutilated by the censor,”<sup>37</sup> the text was glowingly reviewed by Lenin and became a staple in Marxist study circles. In 1919, a revised edition was prepared without the constraints of censorship and with new additions to address the rise of finance capitalism. The 1919 edition was translated by J. Fineberg in 1923 and the second edition published in 1925 is the version most widely available in English today. The most significant recent discussion of Bogdanov’s political economy appears in *Man and the Biosphere* and *Paradigm Lost*, both by Kenneth M. Stokes.

### *Philosophy*

In the history of Soviet philosophy, Bogdanov is generally described as a “Machist,” “empirio-critic,” or “revisionist.”<sup>38</sup> This legacy is primarily due to the influence of Lenin’s *Materialism and Empirio-Criticism* (MEC), a polemic he penned in 1908 after reading the third volume of Bogdanov’s *Empiriomonism*. As the official ideology of the Soviet Union was consolidated as Marxism-Leninism under the leadership of Joseph Stalin, MEC became required reading in the Soviet Union. The cultural revolution that began in 1928, the year that Bogdanov died, brought about five years of intense ideological struggle, and Bogdanov’s history of ideological deviations from the party line ensured that his texts were destined to obscurity. Communist parties around the world followed the lead of the Soviet Union in adopting Marxism-Leninism as their official ideology, and thus, while MEC has been available in English since 1947, Bogdanov’s major philosophical texts have received scant attention. As Jensen observed in *Beyond Marx and Mach*, Bogdanov’s *Philosophy of Living Experience* was often regarded as a popular exposition of his philosophy without any independent significance. Jensen vigorously

disputes this view in his close reading of the text, and his commentary has thus become “essential reading for all Bogdanov scholars,” though they remain few.<sup>39</sup> In sum, Bogdanov’s major philosophical works have continued to be globally underexposed and underappreciated.

The *Empiriomonism* trilogy was originally written between 1903 and 1906. In response to the critique of his economic works, written chiefly for a popular audience, Bogdanov had set out to write a more technically sophisticated book. During his exile in Kaluga, he wrote two essays, “The Ideal of Cognition” and “Life and the Psyche,” published in Russia’s leading philosophy journal. In 1904, these were republished with a third essay, “Universum,” as *Empiriomonism, Book 1*. In Bogdanov’s view, the positivist philosophy of Ernst Mach and Richard Avenarius, dubbed “empirio-criticism,” had cleared away the metaphysical baggage of earlier philosophies by beginning from the concreteness of “experience” as the ground of philosophy. Bogdanov’s ambition in *Empiriomonism* was to overcome the individualism and lingering dualism of empirio-criticism, and thereby establish a monist philosophy consistent with Marx’s historical materialism. In Book 1, this meant explaining the apparent “gaps in experience” expressed in three dualisms—spirit and matter; mind and body; individual and universal— by demonstrating their underlying continuity.<sup>40</sup>

Book 2 was published the following year amid the 1905 Revolution, when Bogdanov was the highest-ranking Bolshevik in Russia. During that “Great Upheaval” in the wake of Bloody Sunday, he organized activity in the St. Petersburg Soviet and wrote numerous pamphlets disseminating the Bolshevik program. Philosophically, Bogdanov continued to develop themes from Book 1 by focusing his critique of metaphysics on the concept of a “thing-in-itself” and by developing a “psychoenergetical method” for studying the phenomenon of “psychical selection.”

When he was imprisoned for his revolutionary leadership in December 1905, Bogdanov continued his theoretical work in Book Three, which he published the following spring. Here, Bogdanov extended his energetical perspective to “social selection,” explaining the development and adaptation of social systems through the complex relations of perception, labor, technology, and ideology.

While “organization” had not yet become the central concept of Bogdanov’s theoretical work, we see his organizational perspective emerging in the formulation and solutions to the problems he set out in *Empiriomonism*. The dualisms of spirit and matter, mind and body, individual and universal, are reduced to the difference between individually organized and socially organized experience. Likewise, the concept of objectivity is explained as historical experience that has been verified by socially organized communication about experience. The goal of knowledge is conceived as organizational progress toward universal harmony and mutual understanding. In his view, philosophy is a means of organizing knowledge; organizing proletarian ideology into a coherent worldview becomes a tool of revolutionary struggle. In Book 3, Bogdanov defined class in organizational terms, arguing that the differentiation of those who organize the labor process from those who implement it is the basis for different paths of social selection, and new social classes are created when this differentiation produces separate organizing ideologies. As he would clarify in future work, Bogdanov saw dualisms in thought and absolutist claims for the objectivity of “things-in-themselves” as philosophical expressions of lingering authoritarian social organization. Although he would later come to reject some of the questions dealt with in *Empiriomonism* as futile metaphysical quarrels, Bogdanov also laid groundwork for his systems theoretical perspective.

Lenin agreed that philosophy is of great importance to revolutionary struggle, but he regarded Bogdanov's *Empiriomonism* as "twisted," "muddling," "bourgeoise," and "reactionary." Lenin argued there are two fundamental "lines" in the history of philosophy—idealism and materialism—extending back to Plato and Democritus, and that no concept exists which is more comprehensive than thinking and being. The question of evaluating a philosophy always comes down to assessing its relationship to the idealist or materialist line: Does philosophy begin from thought or from being? By this standard, Lenin rejects the argument that the concept of experience transcends the distinction between thought and being; whereas his own philosophy begins from being, Lenin argued that Bogdanov's philosophy begins from the side of thought, and as such, that Bogdanov is in essence an idealist. The canonization of Lenin's polemic established the polemical style as a mainstay of Soviet philosophical culture,<sup>41</sup> and while some authors review the outlines of Bogdanov's philosophy,<sup>42</sup> it is not unusual for Lenin's abusive labels to be the only thing one learns about Bogdanov from the history of Soviet philosophy.<sup>43</sup>

*The Philosophy of Living Experience* was first published in 1913, just when Bogdanov had started to write his books on tektology and the concept of "organization" was more and more becoming the center stage in his thinking. Unlike *Empiriomonism*, *PLE* returns to the popular style of writing that Bogdanov has adopted in his previous works. Like the *Short Course*, *PLE* emerged from dialogues between Bogdanov and his students, this time with a group of advanced workers who had been invited to participate in party schools in Capri and Bologna.<sup>44</sup> In this work, Bogdanov was not concerned with impressing academic philosophers but with imparting his ideas to an audience of organic intellectuals, and he cites the writing of his party-school

students as he outlines his basic attitude toward philosophy and its historical role. Everyone has a worldview to help them navigate the world, he says, and the point of philosophy is to expand and systematize that worldview on a higher level.

*PLE* traces the history of materialist philosophy from the ancient Greeks to Marxist dialectics, explaining each philosophical system as an adaptation to the social environment. *PLE* attempts to explain the genesis of ideological organization from social organization, demonstrating how philosophical ideas can be read as analogical to the relations of production for a given society. In this sense, *PLE* is both a history of materialist philosophy and a materialist philosophy of history. By the time he is done, however, Bogdanov has traded the concept of “materiality” for a theory of “universal substitution,” which develops a new picture of the world as “an unbroken series of forms of organization of elements – of forms that develop in struggle and interaction without any beginning in the past, without any end in the future.”<sup>45</sup> To go from universal substitution to universal organizational science was only a short step further.

### *Fiction*

In addition to political economy and philosophy, Bogdanov was a popular science-fiction writer, and his 1908 work, *Red Star*, is considered the first Bolshevik utopian novel. English-language translations became available for *Red Star* and its prequel *Engineer Menni* in 1984, and a short story entitled “Immortality Day” was translated in 2015. *Red Star* was written after the defeat of 1905 and the failure of the RSDLP to maintain revolutionary energy. By 1911, Bogdanov was less convinced that a socialist revolution was imminent, and this is reflected in his fiction writing. Whereas the socialist society in *Red Star* is contemporaneous with the 1905 Revolution, Bogdanov’s 1912 short story “Immortality Day” is set in a distant future. Moreover,

political and cultural struggles have not been finally resolved in this distant future, implying that even in a time of perpetual health and vast material abundance, there will still be vital debates over the norms and values organizing social life. *Engineer Menni*, published in 1913, captures this feeling of prolonged struggle as well. While returning to the universe of *Red Star*, the prequel portrays a long and arduous process of Martian socialist construction which began some 250 years prior. Like *PLE*, published the same year, *Engineer Menni* is also under the influence of Bogdanov's new tektological thinking. In the epilogue, he describes a "school of cultural revolutionaries" who work on an "Encyclopedia of Labor" and discover "Universal Organizational Science" in the process.<sup>46</sup>

### *Tektology*

Bogdanov's works of organizational science were published in English as *Essays in Tektology* (1980, 1984), *Bogdanov's Tektology: Book I* (1996), and finally *The Struggle for Viability: Collectivism through Blood Exchange* (2001). The name "Tektology," Bogdanov explains, is derived "from the Greek root 'ag,' which again spread into other kindred languages...as 'tattein' (to build), 'tekton' (builder), 'taksis' (battle formation and generally order), 'tekhne' (trade, art)" and so on.<sup>47</sup> For communication scholars, the term "tekhne" will stand out in particular. Aristotle classified rhetoric as a techne—the combination of practical art and practical knowledge—and contemporary communication theory has continued to hold the concept in high regard.<sup>48</sup> As Bogdanov points out, techne shares with taksis, tekton, and tattein the general idea of organizational process, and he conceived of communication as the process of organizing ideas. Indeed, McKenzie Wark has described Bogdanov's tektology as "a practice of making worldviews."<sup>49</sup> Bogdanov conceived of tektology as a proletarian science because it

would unite theoretical and practical reason and simplify the diversity of specialized technical languages into a universal communicative practice. As such, organizational science would be the foundation of the proletarian worldview.

Unfortunately, Bogdanov's organizational science suffered a fate similar to that of his philosophy. Although Lenin did not read Bogdanov's *Tektology* and Bukharin insisted that it was a new departure, Lenin appended an essay by V. I. Nevsky to the 1920 edition of *Materialism and Empirio-Criticism* to affirm that Bogdanov's new work in the Proletkult was also "bourgeois and reactionary."<sup>50</sup> In the years after Lenin's death, Stalin would take up this line in matters of economic planning, opposing the revisionist theory of "equilibrium" expounded by Bogdanov, and in altered form by Bukharin, in favor of the dialectical materialist theory of development. Bogdanov continued to pursue tektological research through experimental medicine with Stalin's approval and funding, but after Bogdanov's death the tektological aspects of this program were also abandoned.

When Bogdanov died in 1928, the theory and practice of tektology were largely forgotten and suppressed as its key texts passed into obscurity and its proponents were purged from their posts. Bogdanov's new paradigm for proletarian science became a "paradigm lost."<sup>51</sup> It was not until the mid-twentieth century that many of Bogdanov's tektological insights were independently rediscovered by Norbert Weiner (1948) in the US, Ross Ashby (1956) in the UK, and Ludwig von Bertalanffy (1968) in Germany, among others. Bogdanov's theories had already been labeled bourgeois; as they emerged from the West without his central concern for organizing proletarian culture they were viewed with even greater suspicion. The science and worldview that developed in the USSR were consolidated on a different basis, and mass efforts

toward building a revolutionary proletarian culture would not appear on the world stage again until the 1960s during China's Great Proletarian Cultural Revolution.

Bogdanov's writings on tektology have received more theoretical attention from Western scholars than his other works. This is likely due in part to the early translations of *Essays in Tektology* and *Tektology Vol. 1*, but also to the prevalence of systems theory in the post-Stalin period of Soviet society, which is well documented in Slava Gerovitch's extensive history of Soviet cybernetics.<sup>52</sup> After years of suppression, Soviet cybernetics flourished in a wide array of disciplines from computing to linguistics to biology, but even then it was largely unaided by the prior research of Bogdanov. Though a number of English-language articles about Bogdanov's tektology began to appear as early as the 1970s, the erasure of Bogdanov's theoretical legacy was thorough enough that, despite the breadth of Soviet cybernetics described in Gerovitch's book, that work makes no mention of Bogdanov or tektology.

### **Literature on Bogdanov**

English-language research on Bogdanov, while still scarce, has been steadily accumulating, particularly in the West. Indeed, as John Biggart has argued, Western scholars began the process of rehabilitating Bogdanov long before Soviet historians, who undertook this task only after Glasnost, the ideological "opening up" in the 1980s ushered in by Mikhail Gorbachev as General Secretary of the Communist Party of the Soviet Union.<sup>53</sup> While Bogdanov partook in active philosophical discussions in print throughout his life, discussion of his ideas slowed rapidly to a halt in 1931 when Joseph Stalin issued a decree on philosophy, establishing Lenin's *Materialism and Empirio-criticism* as the official philosophy of Marxism-Leninism and the Soviet State. As Lenin's book had been written as a polemic against Bogdanov, the latter was



then an official target of derision, not serious scholarship. As Nikolai Kremmentsov recalls from his student years in the Soviet Union in the 1970s, Bogdanov appeared in official texts as an opponent of Marxist-Leninist philosophy, but Bogdanov's own writing "was not on the course reading list."<sup>54</sup>

Biggart traces Western interest in Bogdanov to Poland, France, and Germany in the 1960s, with serious scholarly attention to Bogdanov appearing first in 1966, in Dietrich Grille's *Lenin's Rival: Bogdanov und seine Philosophie*. Given Lenin's outsized influence on Soviet history and the historical treatment of Bogdanov, it should come as no surprise that research on Bogdanov has often been framed through the lens of their conflicted relationship. Books that adopt this framing—such as Robert Williams's *The Other Bolsheviks: Lenin and his Critics 1904-1914* (1986), Zenovia Sochor's *Revolution and Culture: The Bogdanov-Lenin Controversy* (1988), and Lynn Mally's *Culture of the Future: The Proletkult Movement in Revolutionary Russia* (1990)—were crucial in shaping "our [scholarly] understanding of the place of Bogdanov in the history of Russian political and social thought."<sup>55</sup> As K. M. Jensen observed in 1978, this framing "led to the obscuring of the complete phenomenon of Bogdanov,"<sup>56</sup> a situation he sought to remedy in *Beyond Marx and Mach*.

Since then, the Lenin-Bogdanov rivalry has remained a central trope of Bogdanov scholarship. However, the study of Bogdanov as a political figure, scientist, and philosopher has also been taken up on its own terms in a number of articles and book chapters, and at length in Biggart's *Alexander Bogdanov, Left-Bolshevism, and the Proletkult 1904-1932*, Kremmentsov's *A Martian Stranded on Earth*, and White's *Red Hamlet*. The latter is an intellectual biography of

Bogdanov's theory and practice in every sphere of his life, from the personal to the political to the scientific, with explication of his major philosophical influences.

It is common for monographs on Bogdanov to begin by recognizing that he is little known to history, and dramatizing the scale of this historical injustice by listing the many fields in which he was a skilled practitioner and made distinctive accomplishments: "Alexander Bogdanov was a Russian philosopher, scientist, political activist, novelist, pioneer of system theory and a physician who founded the first institute of blood transfusion in Soviet Russia"<sup>57</sup>; "a medical doctor by education, a prominent Russian philosopher, economist, biologist, writer, revolutionary and political figure"<sup>58</sup>; "He published influential works on political economy, historical materialism, philosophy, organizational science, and proletarian culture...He inspired and led...He was founder and member...he taught...was named director..."<sup>59</sup> Yet despite this remarkable career, Bogdanov is the least well-known of Russia's Social-Democratic leaders and theorists. Not all commentators find this breadth impressive. Kolakowski reproduces the list-form of Bogdanov's credentials and accomplishments only as preface to a sort of backhanded insult, reasoning that anyone "who produced over fifty books and innumerable articles on all kinds of subjects could not be a philosopher of the first rank."<sup>60</sup> Nevertheless, the trend is clear. Bogdanov was unjustly buried, but he was undeniably prodigious, providing a new era of researchers with an archival treasure trove.

Moreover, a diverse array of scholars who have rediscovered Bogdanov's work find that its breadth is matched only by its depth of insight. As Jensen noted, a comprehensive study of Bogdanov's massive corpus is a daunting task, yet it is also clear that "Bogdanov the philosopher could not be considered apart from Bogdanov the economist, sociologist, historical materialist,

and philosopher of science.”<sup>61</sup> Bogdanov forever strove for an integral and monistic form of thought, and his diverse pursuits should be understood as expressions of this basic motive. According to Jensen, this lifelong pursuit is summed up succinctly by Bogdanov himself in a 1923 lecture entitled “From Religious to Scientific Monism,” a statement of Bogdanov’s worldview that could function like the Rosetta Stone of his corpus.<sup>62</sup>

Appended to Bogdanov’s *Philosophy of Living Experience*, the lecture displays the continuity of Bogdanov’s thrust toward a scientific monism, or “organizational science,” at least a decade earlier in 1913. Despite Kolakowski’s assessment of Bogdanov’s philosophy as “diffuse, chaotic, vague, and repetitive,” he too recognized “in all his [Bogdanov’s] work he was obsessed with the monistic quest” for a “universal science comprising philosophy, sociology, physics, and technology,” or “praxeology.”<sup>63</sup> Alexander Vucinich found that Bogdanov contributed to “three major developments in the general theory of society in Russia” over the course of his career: namely in sociological theory, sociology of knowledge, and systems theory.<sup>64</sup> To Kenneth Stokes, it was equally clear that Bogdanov’s organizational science contributed to a holistic science of society.<sup>65</sup> In each field, Bogdanov recognized that the vast heterogeneity of surface phenomena could be linked to a unifying deep structure.

To summarize, research on Bogdanov typically emphasizes his conflict with Lenin, the breadth of his work, and his monism in philosophy and science. With this general framing in place, we can divide research on Bogdanov into roughly four categories: politics, culture, philosophy, and science. Of course, each category shades into the others, but they remain useful as a matter of emphasis and contrast. For example, we may expect to discover different connections between Bogdanov’s philosophy and political practice than between his views on

science and cultural practice, even if both can be traced back to an underlying worldview that unites them. Or we may discover contradictions between Bogdanov's philosophy and scientific practice that do not arise in connection with his cultural work, or vice versa. Bogdanov himself clearly understood his philosophy and politics to be co-extensive, and the bitter debates over the meaning of materialism among Russian Marxists show that he was not alone in this conviction.

### **Conclusion**

Writing from his new home on the banks of Neva River in St. Petersburg, Alexander Bogdanov expressed his gratitude to "His Majesty" Tsar Nicholas II for giving him the "leisure time" to focus on theoretical work that had languished over the previous year.<sup>66</sup> As the highest-ranking Bolshevik in Russia when the 1905 Revolution began, Bogdanov had had little time for writing books. There were pressing tactical decisions to be made, funds to distribute, conferences to organize, propaganda leaflets to produce, marches and protests and more. In St. Petersburg, workers had banded together in a revolutionary workers council, the first "soviet" of workers deputies; members of the RSDLP, including Bogdanov, had been elected to leading roles on the Executive Committee. But playing such a prominent role in the struggle had also exposed the socialist leadership to repression and reprisals by the tsar. Indeed, Bogdanov's new home on the Neva River was Kresty Prison, a home he shared with more than 200 other politicians and activists who had dared to challenge the autocracy. A prison cell is hardly the best place to conduct research, and Bogdanov was forced to have various materials smuggled into the prison with the help of his wife, Natalya Bogdanova Korsak, and a sympathetic prison guard. Still, there was perhaps a hint of truth in his gratitude for the time to write. During his stay at Kresty Prison,

Bogdanov revised and edited a ninth edition of his *Short Course of Economic Science* and wrote the third volume of *Empiriomonism*.

In the preface to book three of *Empiriomonism*, Bogdanov reflected on the events of the 1905 Revolution and the place of philosophy in revolutionary struggle. With some frustration, he wrote that “Even among a great many people in the ranks of the only *essentially philosophical* political current of our time – Marxism – a naively-practical mood is revealed that is expressed in the usual phrase: ‘this is not the time for philosophy!’”<sup>67</sup> Bogdanov’s own theoretical work had been forced to the back burner as his leadership duties mounted, but he was nevertheless convinced that philosophy was no secondary matter, that philosophical theory is a necessary compliment to political practice. Thus, he insisted that “the significance of a philosophically-supported worldview grows in proportion to the intensity of the life that surrounds us and the importance of the events that are unfolding and in which we must participate.”<sup>68</sup> As the revolution unfolded in the streets, there had not been enough time in the day for Bogdanov to attend to all his practical responsibilities *and* the patient craft of systematic philosophy, but by 1905 he had already dedicated ten years of his life to theoretical preparations that he believed would help his party avoid errors in the practical struggle.

This dissertation is dedicated to recovering the insights Bogdanov left behind in his corpus of writings. Put simply, this work articulates a program for cultural revolution that was to gather up the greatest elements of all past societies, to interpret them from the universal-organizational point of view, and thus to forge a great weapon of class struggle for the final overcoming of class contradictions by the proletariat—the first universal-organizational class. In his view, the revolutionary crisis was not conception but consummation. Like the transition from

quantity to quality, the socialist revolution would unfold when a sufficient portion of society was organized to overcome the resistance of the ruling class and govern the whole of society on a new basis. I investigate how Bogdanov's writing contributes to thinking about the communicative conditions of progressive cultural transformation. I turn to his conception of organizational progress to assess our current trajectory and chart the way forward, and I contend that a close reading of Bogdanov's strategic approach to theorizing and a careful explication of his concepts has much to offer communication studies.

Nearly a century after Bogdanov's death, all his comrades and competitors are long gone, but his work remains relevant to contemporary social struggles because many of the same forces structure our contemporary situation. Bogdanov's progressive vision of a more organized world is still possible. Many external influences have spurred the world on toward higher levels of organization, and while Bogdanov expected that in the case of capitalism, an internal contradiction rather than an external contradiction would be the motivating force for change, this is far from certain. Some believed that the nuclear age signaled the end of all-out-war and the beginning of global collaboration on a higher level. It was simply irresponsible to lack coordination, given the risks. Today, this concern is repeated in the name of climate crisis. Once again, it appears that global action is required to meet serious technological challenges. I call this a technological challenge in Bogdanov's sense of the technological: that is, dealing directly with Nature. For Bogdanov, technology is at the frontier of the human community, marking the boundary line between Society and Nature. Technology is the process of gaining control over Nature and so subsuming it within society.

For Bogdanov, technology was the key progressive force that would transform capitalist society into socialist society. He was particularly excited by the development of machine production and the beginning of automation and self-regulated machines. In his view, the issue was not with this technology so much as with the economic relations and ideological constructions that suppressed the liberating potential of this technology. We need a cultural revolution today more than ever.

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<sup>1</sup> Bogdanov, *Essays*, 32.

<sup>2</sup> Bogdanov, *Short Course*, viii.

<sup>3</sup> Bogdanov, *Philosophy*, 236.

<sup>4</sup> Bogdanov, *Red Star*, 232. The source for Bogdanov's Martian writings is *Red Star: The First Bolshevik Utopia*, a 1984 collection translated by Charles Rougle, edited by Loren Graham and Richard Stites.

<sup>5</sup> Bogdanov, 66.

<sup>6</sup> Marx, "Critique."

<sup>7</sup> Bogdanov, *Red Star*, 69.

<sup>8</sup> Bogdanov, 76.

<sup>9</sup> Bogdanov, 77.

<sup>10</sup> Bogdanov, 79.

<sup>11</sup> Bogdanov, 24

<sup>12</sup> White, *Red Hamlet*, 120.

<sup>13</sup> Fige, *People's Tragedy*, 190.

<sup>14</sup> White, *Red Hamlet*, 141.

<sup>15</sup> Trotsky, *Russian*, 56.

<sup>16</sup> Burke, *Permanence*, 184.

<sup>17</sup> Stites, "Fantasy," in *Red Star*, 6.

<sup>18</sup> Bogdanov, *Red Star*, 24.

<sup>19</sup> White, *Red Hamlet*, 409.

<sup>20</sup> Bogdanov, *Red Star*, 113.

<sup>21</sup> Bogdanov, 113.

<sup>22</sup> Bogdanov, 114.

<sup>23</sup> Bogdanov, 114.

<sup>24</sup> The acronyms RSDLP and RSDRP may be used interchangeably. In the Russian-language name for the Social Democratic party, Российская социал-демократическая рабочая партия, the word рабочая can be translated equally well as "working" or "laboring."

<sup>25</sup> Pavlov, "Nikolai Bukharin." n.p.

<sup>26</sup> Wiebe, *Search*. 170

<sup>27</sup> Peters, *Speaking*, 11.

<sup>28</sup> Whitehead, *Science*, 97.

<sup>29</sup> Whitehead, 97.

<sup>30</sup> Bogdanov, *Toward*, 220.

<sup>31</sup> Bogdanov, 99.

<sup>32</sup> Bogdanov, *Essays*, 32.

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- <sup>33</sup> Reisch, “Planning,” 153–75.
- <sup>34</sup> Peters, “Normalizing,” 145–75.
- <sup>35</sup> Rowley, “Editor’s Introduction,” xx.
- <sup>36</sup> White, *Red Hamlet*, 17.
- <sup>37</sup> Bogdanov, *Short*, vii.
- <sup>38</sup> Sheehan, *Marxism*.
- <sup>39</sup> Rowley, “Editor’s Introduction,” xiii. As Rowley remarked in 2016, there had been little engagement with Bogdanov’s *The Philosophy of Living Experience* among US or European scholars even in the decades after Jensen’s work.
- <sup>40</sup> Bogdanov, *Empiriomonism*, 130.
- <sup>41</sup> Bakhurst, “On Lenin’s,” 107–119.
- <sup>42</sup> Wetter, *Dialectical*.
- <sup>43</sup> For example, see Blakely.
- <sup>44</sup> Rowley, “Editor’s Introduction,” xiii.
- <sup>45</sup> Bogdanov, *Philosophy*, 233.
- <sup>46</sup> Bogdanov, *Essays*, 232.
- <sup>47</sup> Bogdanov, *Essays*, 19.
- <sup>48</sup> See for example, Sterne, “Techne,” 91-98.
- <sup>49</sup> Wark, *Molecular Red*, 25.
- <sup>50</sup> Lenin, *Materialism*, 11.
- <sup>51</sup> See Stokes, *Paradigm Lost*, which draws extensively on Bogdanov’s tektology.
- <sup>52</sup> Gerovitch, *From Newspeak*.
- <sup>53</sup> Biggart, “Rehabilitation,” 43.
- <sup>54</sup> Kremontsov, *Martian*, xiii.
- <sup>55</sup> Biggart, “Rehabilitation,” 44.
- <sup>56</sup> Jensen, *Beyond*, 10.
- <sup>57</sup> White, *Red Hamlet*, xi.
- <sup>58</sup> Gorelik, “Bogdanov’s,” 1.
- <sup>59</sup> Rowley, “Editor’s Introduction,” vii.
- <sup>60</sup> Kolakowski, *Main*, 434.
- <sup>61</sup> Jensen, *Beyond*, 15.
- <sup>62</sup> Jensen, 16.
- <sup>63</sup> Kolakowski, 432–434. Praxeology is the name given to a similar activist systems science by Kolakowski’s fellow Polish philosopher, T. Kotarbinski.
- <sup>64</sup> Vucinich, *Social*, 206.
- <sup>65</sup> Stokes, *Paradigm*. Stokes is particularly interested in the application of this holistic science to the domain of political economy.
- <sup>66</sup> Bogdanov, *Empiriomonism*, 268.
- <sup>67</sup> Bogdanov, 267.
- <sup>68</sup> Bogdanov, 267.



## CHAPTER II

### THE LIVING EXPERIENCE OF ALEXANDER BOGDANOV

Levin had arrived in Moscow by the morning train and was staying with Koznyshev, his older brother on his mother's side, and after changing clothes he went into his brother's study, intending to tell him immediately why he had come and to ask his advice; however, his brother was not alone. Sitting in his study was a famous professor of philosophy who had come from Kharkov expressly to clarify a misunderstanding that had arisen between them on a philosophical problem of the utmost importance. The professor had been waging a heated polemic against the materialists, and Sergei Koznyshev had been following this polemic with interest, and after reading the professor's latest article, he had written him a letter stating his own ideas; he had reproached the professor for excessive concessions to the materialists. So the professor had come immediately in order to talk this over. Under discussion was a fashionable question: is there a boundary between psychological and physiological phenomena in human action, and if so, where does it lie?<sup>1</sup>

Alexander Bogdanov is said to have read Leo Tolstoy's *Anna Karenina* at the ripe young age of seven. His father disapproved on the basis that his son was too young to be reading "romance novels," but he was a precocious child, and there was little sense in trying to stop him. Bogdanov was arguably one of the most curious children of the Russian Empire. The vast majority of Russians were peasants, but Bogdanov would never work a field. In Sokolko, the small Polish town where Bogdanov was born in 1873, there were many tenant farmers, a small number of independent farm owners, and even fewer shopkeepers, merchants, and artisans. But Bogdanov would not become a craftsman, merchant, or small proprietor. Then there was the nobility—princes, counts, barons, and all the little lords of the landed gentry—but Bogdanov was not an aristocrat, nor would he rise into noble ranks. He would be an intellectual.

I don't know what the typical child would take from Tolstoy's novel at age seven, but I like to imagine that chapter 7 stuck with him for several reasons. First, the scene stages a battle between materialism and idealism, a situation that was repeated countless times over the course of Bogdanov's philosophical career in his polemics against idealists and materialists like Plekhanov. Second, Tolstoy frames the debate within concepts of the "psychological" and "physiological," which centers the philosophy of cognition, a subject on which Bogdanov wrote extensively. Finally, the scene closes with the failed intervention of Levin, a man of natural science with a progressive attitude toward social and technical development but a non-expert in philosophy. Levin was frustrated because "each time, as soon as they came close to what seemed to him the crux of the matter, they retreated in haste and again delved into the sphere of subtle distinctions, qualifications, citations, allusions, and references to authorities, and he had a hard time understanding what they meant."<sup>2</sup> Throughout his life, Bogdanov dedicated himself to speaking clearly in a way understandable to the people.

This chapter follows Bogdanov's life from these early years until his death during arguably the most tumultuous period in Russian history. As indicated by this opening anecdote, Bogdanov sought to use intellectual writing—whether in treatises, philosophy, or literature—as an instrument for social change. But to appreciate the nature of those instruments, we must understand the situation to which his writing responded and in which it was embedded. Bogdanov was a man of his times even as he

tried to write as an intellectual for all time. This chapter explores the relationship between the particularities of his experience and the universal nature of his thought.

### **The Russian Context**

To be born in Russia in 1873 was to be a child of empire. The Russian Empire was formed in 1721, but the House of Romanov had ruled the central territory for over 300 years. Already the reigning imperial house of Russia for over a century, the Romanovs established their dominion over more than a hundred ethnic groups. The persecution of these peoples was a promise of the tsarist constitution, which “explicitly based discriminatory measures on the racial or national origin or religion of those affected.”<sup>3</sup> The Romanovs sent colonists into these vast territories to exploit the land and labor of the peoples from Europe to Asia, from the Arctic Ocean to the Black Sea. The Russian Empire was enormous and confident that its rule would last for centuries to come.

But changes were on the horizon. In the late nineteenth century, Russia was undergoing the transition from feudalism to capitalism. Under feudalism, Russian society was composed of two major classes: the aristocracy who owned the land, and the serfs who worked the land. Serfs, like slaves, were the property of the landlords. If an aristocrat purchased an estate, the serfs who worked the estate were included in the deal because the serfs were bonded by law to the land. The emancipation of the serfs in 1861 set in motion vast changes in Russian society. In the traditional patriarchal household, married men might be forty or fifty years old, with multiple children of their own, and

still be subordinated to their fathers, the patriarchs of their communities. Having won the right to their own plot of land, many broke from tradition to strike out on their own. The traditional household began to disintegrate and be replaced by the modern nuclear household. Between 1861 and 1884, 40 percent of households would be divided in this way, despite the negative economic consequences experienced by most peasant families.<sup>4</sup>

In spite of this land reform, at the turn of the century Russia could still be fairly characterized as semi-feudal. There was a growing capitalist class among the landlords who owned factories, but it was relatively weak in comparison to Western Europe. The working class grew too. The majority of the population remained peasant farmers, but it became increasingly common for younger peasants to travel from their rural communities into the urban centers for seasonal employment. Others produced petty commodities in their homes for a small money-income, but this home industry did not appear to be progressing towards a developed handicraft system apart from agriculture. Similarly, the cities did not develop the equivalent of Western craft-guilds. Rather than productive systems, they were primarily administrative as the primary trade routes were developed for foreign trade, such that “the Russian trader was a mediator between the Western cities and the Russian villages.”<sup>5</sup> A small urban industrial proletariat was developing; by the turn of the century second-generation industrial workers were developing a separate culture. Mostly reflecting the semi-feudal landscape, however, the working class was only semi-proletarian.

Another key source of change was an emerging sense of popular nationalism that challenged the primarily feudal notions of empire. This resistance began to coalesce by the late nineteenth century, and by 1905 it increasingly appeared under socialist banners. As Orlando Figes observes, among “the nationalist movements within the Russian Empire...their most successful political variants were nearly always socialist in form.”<sup>6</sup> Enabling this movement was the gradual spread of literacy in Russia. Figes points out that “most of the national movements in the Tsarist Empire began with the growth of a literary cultural nationalism in the middle decades of the nineteenth century.”<sup>7</sup>

However, because communication and transportation infrastructure in the Russian Empire was very limited by comparison with Western Europe, these nationalist movements tended to concentrate with the minority of literate intellectuals like Bogdanov. For example, before WWI, Germany had nearly thirty times the amount of railroad as Russia.<sup>8</sup> Germans were almost universally literate, whereas the vast majority of Russian were not. Given the underdeveloped state of education, communication, and transportation infrastructure, national movements were seriously limited in scope. Thus, while the 1917 Revolution was a movement of millions, its leadership was drawn from a relatively small section of the population: the educated middle class. So much so that Figes boldly claims that “the history of the revolutionary movement is the history of the intelligentsia. Most of the revolutionary leaders were first and foremost intellectuals,” and “no other single group of intellectuals has had such a huge impact on the twentieth-

century world.”<sup>9</sup> The alliance of the radical intelligentsia, the small working class, and the peasantry is what made history.

Bogdanov thus plays an outsized role in Russian history because he was part of this small but influential radical intelligentsia. His novel *Red Star* was eagerly read and shared among students and workers and later commemorated as “The First Bolshevik Utopia,” the subtitle to the 1984 English edition. His textbook on political economy was declared by Vladimir Lenin to be the best available. His sociological work was a major influence on Nikolai Bukharin, a political economist and politician, and on Anatoly Lunacharsky, who became the director of Soviet education, among many others who entered the Soviet government. Despite leaving the Bolshevik party prior to the 1917 revolution, in the 1920s Bogdanov “had considerable standing as the most eminent socialist theoretician in the country,” and his many texts of socialist theory “were widely studied in Soviet educational institutions.”<sup>10</sup> Bogdanov never tried to oppose the Soviet state, although keenly aware of its shortcomings. Nonetheless, his refusal to rejoin the party or participate in the state bureaucracy and his clashes with Lenin ensured that his theoretical legacy suffered the fate of repression and erasure, like so many thorns on the Soviet rose.

### **Bogdanov’s Childhood**

Alexander Malinovsky, known to history as Alexander Bogdanov, was born on August 10, 1873, in Sokolko, a small town on the periphery of the Russian Empire. In Sokolko county, the vast majority of the people were peasants working as tenant farmers

on government lands. There were also a small number of independent farm owners and even fewer artisans and merchants. Bogdanov's family was unusual in this respect since they were not peasants, gentry, artisans, or merchants. While training to become a priest, Bogdanov's father had discovered his calling in education, and so he became a schoolteacher in Sokolko. At a time when most of the Russian people were illiterate, Bogdanov came from the educated middle class.

Further setting Bogdanov's family apart was their religious affiliation. Sokolko had been a Polish town before it was annexed by the Russian Empire in 1807, and most of the people who lived there were Catholics or Jews. In Russia, however, the privileged religion was Eastern Orthodox Christianity, and Bogdanov was baptized at the St. Alexander Nevsky Orthodox Church. Bogdanov's father had come to teach in Sokolko, not to preach, but the local population, particularly the Polish Jews, feared Russian religious persecution with good reason. Ever since the annexation there had been anti-Jewish pogroms. Moreover, as Leon Trotsky later remarked in his *History of the Russian Revolution*, the Russian Orthodox Church largely functioned as an extension of the tsar's autocratic power: "Two hundred thousand priests and monks were in all essentials a part of the bureaucracy, a sort of police of the gospel. In return for this, the monopoly of the orthodox clergy in matters of faith, land, and income was defended by a more regular kind of police."<sup>11</sup> The quid pro quo between the Orthodox Church and the Tsardom meant that, pogroms aside, religious discrimination was a feature of everyday life.

Antipathy toward Russian rule had simmered and sometimes boiled over in the decades after annexation. In the 1860s, Sokolko had been a hotbed of rebellion; activists gathered there to organize the January Uprising of 1863. The rebellion was quashed by Tsar Alexander II, but when Alexander Bogdanov was born a decade later in 1873, the tension was still palpable. Polish national oppression—religious, linguistic, and otherwise—had not been ameliorated. Friedrich Engels commented the following June that “Poland, due to its historical development and its present position, is faced with the choice either of becoming revolutionary or of perishing,” and he was convinced that Polish nationalists would take the revolutionary path at the next opportunity.<sup>12</sup> If the Malinovsky family did not feel unwelcome in Sokolko, they must still have felt the tension, though they would not be there to see it resolved.

Bogdanov’s father took a job as a school inspector in Mologa, an old and storied Russian town tucked in among the forests of fir and pine along the river Volga. Significantly larger than the town they had left behind, Mologa was situated in the Yaroslavl province northeast of Moscow. The town had been an important center of commerce since the fifteenth century, providing a staging post on the Volga that connected the Russian Empire to east Asia. When the Malinovskys arrived there in 1878, the nearby capital of Yaroslavl was already connected to Moscow and Vologda by train. Yaroslavl was also home to major industries, including the first Russian tobacco factory, and in 1879 the first Russian oil refinery. The Yaroslavl province was a place of education, too. There had been a university in Yaroslavl since 1803 and public



elementary schools for over a century. In Mologa, Bogdanov had access to a library and a small physics laboratory in the local school. In a short time he became an avid reader and also began to distinguish himself in mathematics. He even got his first opportunity to teach when his father instructed him to lead a class of his peers in arithmetic.

Whether in Sokolko or Mologa, patriarchal authority was an ever-present influence on Bogdanov's early experiences. In his works of economic history, Bogdanov traced the origins of patriarchal authority to "authoritarian tribal communes," the first historical social formation in which the power of the group over the individual was transformed into "the power of one man over another." Women were subordinated to men, and men were subordinated to their fathers. In the patriarchal commune, the power to organize social life among a large kinship group was "transferred into the hands of one person – the patriarch."<sup>13</sup> In the feudal era, the economic and military power of the patriarchs became permanent and hereditary. The strongest patriarchs became feudal lords, and the strongest lords became kings. Throughout the era of Russian feudalism, the patriarchal form of organization grew and was consolidated into an all-encompassing chain of authority that descended from His Imperial Highness the Emperor of Russia to the lowliest peasant.

Even as the growing social division of labor and the abolition of Russian serfdom splintered the peasant communes into separate families, authority within the family held to the same traditional pattern. Men were increasingly freed from subordination to their fathers, but they retained absolute authority over their wives and children. As Bogdanov

put it, “The father plays the same authoritarian role in the family as the patriarch did in an old clan group.”<sup>14</sup> The modern family was but a modified form of the oldest authoritarian social organization. Relationships of power and subordination were attenuated but still effective in their limited domain.

Patriarchal norms in the Malinovsky household formed Bogdanov’s first and most intimate experience of authoritarian relationships. Alexander Sr. was not especially cruel, but he blamed his wife, Maria, for every problem of the household, and he was prone to angry outbursts at her and the children. Bogdanov considered his father to be irresponsible, inconsistent, and lacking in initiative: unwilling to take responsibility for his part in familial conflicts, arbitrary in the rules he enforced in the home, and incapable of pursuing his aspirations with determination and grit. As a result, he was frustrated in life and took this frustration out on his wife and children in petty quarrels. Bogdanov thought his mother to be immature and underdeveloped. She had married young, and her entire adult life had been devoted to bearing and raising her six children. Two of the children would not live to adulthood, and Bogdanov believed that the trauma of their deaths had put a strain on her mental health.

But more importantly, the domestic drudgery of a housewife provided no comparable experience to the individualism of a man in the marketplace, where a sense of personal will and agency can develop; nor to the collectivism of men in the factory, where solidarity among comrades is built. By the turn of the twentieth century, women in Russia accounted for only one quarter of the total number of workers employed in

capitalist industry, and even then they earned half the wages of their male counterparts. Russian women like Bogdanov's mother Maria often had to deal with violence in the home, but the core of patriarchal oppression was limited capacity, the predictable result of a narrow and stultifying horizon of experience. Bogdanov felt the injustice of patriarchal authority acutely, but precocious as he was, he could not fully grasp the nature of class conflict between men and women. He knew only that he could not seem to resolve the conflicts between his parents, and that in household disputes he would take his mother's side in defiance of his father's arbitrary authority.

### **Tula Gymnasium**

As Bogdanov matured into a young teen, his struggles against arbitrary authority continued in the city of Tula, where he attended secondary school as a boarding student. Tula was a bustling industrial center; a large armaments manufactory, the Imperial Tula Arsenal, had been built by the Demidov family at the behest of Peter the Great and became well known throughout Europe for producing high-quality weaponry. There were several ironworks and other metalworking factories too, such as the Lisitsyn family's samovar factory, which had become the first producer of Russian samovars in the late eighteenth century. The populist literary icon Leo Tolstoy lived just a few kilometers south of the city; his home in Tula Oblast is where he wrote his most famous novels. The city was of similar size and significance as Yaroslavl and a similar distance from Moscow by train, though in the opposite direction from Mologa. Thus, Bogdanov now lived hundreds of kilometers from his family home, and by all appearances, he did

not mind the separation. Indeed, he preferred his new home enough to remain there during the summer months.

Secondary schools or gymnasia were an elite institution in the Russian Empire, made available to very few. Bogdanov's father could prepare him for the intellectual rigors, but his salary was not sufficient to pay for Bogdanov's continued education. It was fortunate, then, that Bogdanov had won a state scholarship for his demonstrated excellence in primary school. Education at a gymnasium in Russia meant access to social mobility and the potential for a professional career in business or the civil service. It was a gateway to life in the upper middle class, preparing students for important positions of leadership in society, especially as the late tsarist bureaucracy expanded its need for qualified professionals to administer the state.

Bogdanov was well equipped to manage the intellectual requirements, but he had little use for the conservative ideology that the gymnasia sought to instill in students. To fulfill their future roles as professionals and bureaucrats in Russia's autocratic regime, students would need to adopt the appropriate customary norms and attitudes, reverence for authoritative texts, and readiness to obey commands. Following the traditional classics curriculum, the gymnasia taught ancient Greek so that students could read the Christian Bible and other classic texts in their original form. Debates over the curriculum resulted in the natural sciences being added and removed from the course of study as officials tried to determine their impact.

For example, natural sciences had been introduced into the Tula curriculum in the 1850s, replaced with Latin in the 1860s, and then returned in the 1880s. These debates were both academic and political. Decisions about curricula reflected what kind of knowledge was most valued among the Russian elite, who would be responsible for transmitting this knowledge to future generations and how this cultural inheritance would shape a changing Russian society. On the one hand, natural sciences were associated with the high culture and industrial progress of Western Europe and particularly Germany, which had the most advanced university system of the time. On the other hand, the sciences were associated with the countercultural trend of Russian nihilism and its attendant themes of atheism, materialism, and radical politics. From the tsarist perspective, it was the job of educators to produce orderly and efficient subjects, not unruly and demanding citizens. Yet many university students who graduated from these gymnasias were openly rebelling, demanding liberal rights such as the freedom of speech and assembly, and worse, joining conspiratorial organizations committed to the violent overthrow of the existing order.

In Tula, Bogdanov was mired in all the contradictory tendencies of this time, and he discovered that the classroom was a site of class struggle, with or without his father as a teacher. Much as he had chafed against the patriarchal authority of his childhood, Bogdanov now struggled against the rigid discipline enforced by the gymnasium administration and staff. Life in the dormitories, he thought, was “very much like a military barracks of prison”; his teachers were “malicious and narrow-minded

authorities.”<sup>15</sup> During his time at the gymnasium, he learned to read in the classical languages as prescribed by the curriculum, but he observed that this process was nothing like learning a language in the home. In school, he found that language was taught by imposing compulsory “external norms,” and “a peculiar type of teacher-sadist is often formed on its basis who enjoys the tears and sobbing of the children ‘entrusted’ to them.”<sup>16</sup> Even while showing himself an able student, Bogdanov detested the authoritarian relationships cultivated by these teacher-sadists. He thought that teachers and students should relate to one another as equals, not superiors and inferiors, and that teachers should also be open to learning from their students in a process of mutual growth. The very best teachers would “freely and directly adapt their activity to that uniqueness [in each student] and thus impart to their students the lived experience of humanity.”<sup>17</sup> But that was a far off ideal.

Relationships with teachers were stultifying, but Bogdanov found resources for resistance in his relationships with peers and in his reading of history. Among his peers Bogdanov found “‘republican’ relationships coloured with the aristocratism of intellect and strength.”<sup>18</sup> Bogdanov was no stranger to the dominance hierarchy of aristocratism, nor did he refrain from the competitions of intellect and strength. As his schoolmate I. I. Sobolev recalled, Bogdanov frequently demonstrated his intellectual gifts by winning games of chess without looking at the board. But it was the “republican” aspect of these peer relationships that had a more enduring influence. The essence of this republican ethos is well captured by the motto—*liberté, égalité, fraternité*—of the French

Revolution, a potent symbol for rebellious students and revolutionary intellectuals in Imperial Russia. Indeed, Bogdanov thought that when the influence of peers predominates, it leads to “the well-known radical-democratic worldview that combines ideas of freedom, equality, and in part, brotherhood.”<sup>19</sup>

This was the type of relationship he cultivated with friends like V. A. Bazarov, the son of a local medical doctor and a fellow rebellious spirit. Born Vladimir Rudnev, he chose the pseudonym Bazarov in honor of the nihilist character in Ivan Turgenev’s 1862 novel *Fathers and Sons*. Much like his namesake, Bazarov was a materialist, positivist, atheist, and student of the natural sciences. Bazarov and Bogdanov were fast friends, and they would remain so for life.

The influence of reading was comparatively less significant than the concrete experience of relationships with parents, teachers, and peers. Still, the backward condition of Russian society made even the most benign textbooks come alive as equipment for living. Bogdanov observed that “in the struggle with teachers at school, actions such as self-defense or attack seem dangerous and, in practice, frequently harmful, while in history textbooks (even those that are thoroughly approved) deeds that are extremely similar are, in some instances, praised as heroic.”<sup>20</sup> Astute readers could not help but recognize the contradiction between theory and practice, and the more courageous among them gained an ideological weapon. In their senior classes, Bogdanov and Bazarov began to specialize in the natural sciences; as already mentioned, this course of study was never far from the philosophical and political implications of

Russian nihilism. Here too, a simple textbook was pregnant with revolutionary significance that educators could not hope to contain.

### **Moscow University**

In 1892, Bogdanov and Bazaraov graduated from the Tula Gymnasium and enrolled at the Imperial Moscow University (IMU) to continue their studies in the natural sciences. Among the oldest and most prestigious universities in the Russian Empire, IMU was an elite institution. In a nation of over a hundred million people, IMU admitted fewer than 1,000 students each year. Few Russians could then dream of attending university, but new buildings were constructed year after year, and new students began arriving to fill them. The liberal reforms of Tsar Alexander II gave the universities a degree of self-governance and the funds to expand their faculties. New departments were formed; new libraries and laboratories were built. Education was made more affordable for a broader range of students.

Even amid the reactionary counter-reforms of Tsar Alexander III, who tightened state control over the university and raised student fees, the student population at Moscow University nearly doubled in size from 1880 to 1890. Education provided a pathway to careers as lawyers and doctors, state bureaucrats in the tsarist government, or technical professionals working for the *zemstva*—institutions of elected local government provided since 1864. It was a far cry from the life of a peasant or factory worker. Even if students had to scrimp and save every last kopek to afford tuition, the university presented an opportunity they could not afford to miss.



Like many of the poorer students who had won admission to the university by their talents, Bogdanov could not rely on his family to help pay tuition, and so he turned to the student societies for help. Much like the peasant commune, which divided up land and collectivized the tax burdens imposed by landlords, the *zemliachestvo*, or student society, was an institution that collectivized the burdens of university education, collecting and distributing much needed financial resources. Also like the communes, student societies were organized according to geography. Students of a similar background supported one another in networks of mutual aid, and as these societies grew, their organizations became increasingly formal. They held meetings where representatives of different *zemliachestva* could discuss common concerns and pool their resources, and they eventually elected a “Union Council” to represent and manage their collective interests.

By the time Bogdanov arrived in Moscow, the student societies had established libraries and developed resources for self-education to supplement university coursework. Alongside his friend Bazarov, Bogdanov joined the Tula *zemliachestvo* and was soon elected to a leadership position in the Union Council, which further developed his radical-democratic tendencies. The student societies in Russian universities reflected the collectivism of Russian society in which the basic unit of traditional governance was the *mir*, a rural commune responsible for dividing the land and the state tax burden equally among peasant families. At university, the student societies provided social and economic support, collecting and distributing money that poor students relied on.

However, membership in such organizations was secret because the university administration had banned independent student organizations, driving them underground. As a result, students learned by necessity “the habits and techniques of conspiracy. . . . For some students, joining a *zemliachestvo* [student society] was the first step towards joining a revolutionary organization.”<sup>21</sup> Students experienced direct antagonism between the existing regime and their ability to survive student life.

Parallel to these student societies, radical-democratic political groups were appearing in the cities as well. According to White, “the first Social-Democratic circles appeared at Moscow University during the winter of 1891-2,”<sup>22</sup> not long before Bogdanov’s arrival. Some circles confined themselves to propaganda among the students, but others had ventured into organizing workers as well. Much like the student union, the workers’ circles organized among themselves to form a “Central Workers’ Circle,” soon to be called a “Workers’ Union.”<sup>23</sup> After the death of Tsar Alexander III in 1894, student organizers of the Student Union and the Workers’ Union joined demonstrations at Moscow University calling for liberal reforms. The Moscow police began to gather information on the leadership of these groups and warned against any further radicalism. After another demonstration, some two months later, the student rebels were rounded up and exiled to the provinces.

Bogdanov’s fellows now included organizers from both student and workers’ circles, and when they arrived in Tula, they found that a Social-Democratic circle already existed there, set up by workers exiled from St. Petersburg. “It was within this

movement that Bogdanov's attitudes to workers' organizations were formed, attitudes which he retained for the rest of his life and which permeated his thinking."<sup>24</sup> Most of all, Bogdanov's attitude toward workers' organization was characterized by the belief that intellectuals played the role of scaffolding, creating a temporary structure for workers to develop the skills required for self-organization in a movement that was properly their own. It is appropriate, then, that his work as an intellectual in the movement was requested rather than imposed. In 1894, a worker in the Tula Armaments Factory was introduced to Bogdanov and requested his help. By 1895, Bogdanov was leading a workers' circle in the study of political economy.

### **Democratizing Knowledge**

Bogdanov's writing on political economy arose from the practical concerns of a teacher. In the forests of Tula in 1896, Bogdanov was leading his second study circle, now consisting of sixteen members, but found the textbooks at his disposal insufficient to the task. In a 1918 memoir, Bogdanov recalled that in these meetings, "explanatory reading soon became a boring prologue to lively discussions which often went far beyond the topics we had been reading about."<sup>25</sup> Rather than be discouraged by these wandering discussions, Bogdanov paid careful attention to the interests of his students and interlocutors. He discovered that "in these discussions certain tendencies kept appearing, all of their own accord, and a definite direction began to emerge, which prompted the searching mind of the young lecturer to seek to connect as links in a complex chain of development phenomena relating to technology and economics with

their concomitant forms of spiritual culture.”<sup>26</sup> In response, Bogdanov set to work on his own *Short Course of Economic Science*, which was published the following year in 1897. His goal was to explain the integral relation of these phenomena from a Marxist perspective, connecting the systematic analysis of Karl Marx’s *Das Kapital* to the organic interests of workers in language that was accessible, yet exact.

Translating Marx’s dense analytical text into language suitable for mass instruction is no easy task, made all the more difficult in tsarist Russia under the watchful eye of the censors. Upon publication, Bogdanov took the precaution of adopting a nom de guerre. The *Short Course* was the first time Alexander would assume the surname “Bogdanov” by which he is known today. In these circumstances, Bogdanov could not make mention of Marx directly, nor any of Marx’s well-known commentators such as Lenin, Sieber, or Kautsky. Clearly frustrated by this process, Bogdanov describes the original text as “ruthlessly mutilated by the censor.”<sup>27</sup> Nevertheless, he was committed to a form of “proletarian education” that was both theoretically exact and well adapted to its audience.<sup>28</sup> His text was considered a great success by fellow Social Democrats such as Lenin, whose glowing review of the text declared it the best guide to political economy available for students and teachers in Russia.<sup>29</sup>

Bogdanov’s practical orientation toward the educational role of intellectuals was rewarded in the uptake of his textbook by workers. The *Short Course* became a key text for studying Marxist theory in revolutionary workers’ circles and was popular among

students as well. As Alexandra F. Yakovleva notes, “a poll conducted among students at intermediate educational institutions in 1903” found that “among writers on social sciences, Bogdanov was by far the one whom the student reading audience preferred.”<sup>30</sup> Not only was his method of democratic education coherent and politically principled, but it also appeared that drawing on the interests of students was the most effective method of preparing a popular and persuasive text.

### **First Arrest**

Alexander Bogdanov was arrested four times before his fortieth birthday. The first time, he was a student at Moscow University. He spent only a night or two in jail but considering his “offense,” it seems absurd that he was arrested at all. Bogdanov had been elected as a representative to the Student Union. That’s strike one, because in Tsar Alexander III’s Russia the students had no rights of assembly and free association; in fact, the student organizations had been banned. Nonetheless in the wake of Alexander’s death, Bogdanov had participated, in his official capacity as a student leader, in drafting a series of requests for liberal reform at the university. Given the personal power vested in the emperor, this may indeed have been an opportunity. Alexander III had been scarred by the assassination of his father; what fortune would the reign of Nicholas II bring to Russia? The student petition was prepared for delivery to the new tsar, and the conservative head of the Moscow police was scandalized. Strike two. Bogdanov as his peers were now under tight surveillance.

Then there was the protest. The renowned liberal historian Vasily Klyuchevsky had given a speech in commemoration of the recently deceased Tsar Alexander III. The students scoffed. Alexander had been an open reactionary, ruling under the slogan of Orthodoxy, Autocracy, and Nationality. His reforms were dubbed “counter-reforms.” And the liberal Klyuchevsky had handled his legacy with kid gloves. Instead of risking his job to uphold the political principles he held dear, the professor let the emperor off the hook. The more radical students mocked Klyuchevsky’s speech in pamphlets distributed across campus, and they even disrupted one of his lectures with loud jeering and shouts of disapproval. When the administration caught wind of these disturbances, three of the students who participated in the classroom protest were summarily expelled.

The student body was up in arms, and even with armed detachments on campus to prevent a riot, student leaders could barely contain the animus. High school had prepared them with lessons in ancient Greek; it would take only a single student agitator with the words of Pericles on their lips: “having judged that to be happy means to be free, and to be free means to be brave, do not shy away from the risks of war.” Bogdanov, however, acted with restraint. Like most student leaders, he was more concerned with the day-to-day affairs of student organizing, allocating funds for the student-run library, and providing materials for self-education, ensuring that the poorest among them could survive in Moscow. So instead of intensifying the contradiction between students and the university into open antagonism, Bogdanov and the other leaders in the Student Union drafted another petition, this time to the university

administration. They even managed to win professors to their cause, including the besmirched Klyuchevsky himself.

The university administration would not budge. More than immune to the protesters' pleas, they were downright vengeful, rounding up some twenty or so student leaders and banishing them from campus. Ironically, they did not manage to discover I. I. Skortsov-Stepanov, who had instigated the raucous protests with his playful pamphleteering and who would continue causing trouble in the city. On the other hand Bogdanov, who had advocated moderation, was easily identified as a student organizer by the secret police, arrested, and exiled to Tula. In short, Bogdanov was called to revolt, but at this time he refused the call. As it turned out, he was punished anyway, which taught him a valuable lesson.

### **Kharkov University**

While Bogdanov was conducting workers' circles in Tula, he was also attending graduate courses in the faculty of medicine at Kharkov University, where he was enrolled from 1895 to 1899. Since attendance at university lectures was not mandatory, Bogdanov spent less than half the year in Kharkov, preferring to focus his energies on revolutionary activity in Tula. Nonetheless, he graduated in four years with a "diploma of physician with specialization in nervous and psychiatric diseases."<sup>31</sup> In 1899, he published *Basic Elements of a Historical Outlook on Nature: Nature, Life, Psyche, Society*. Bogdanov scholars generally agree that this first major philosophical text

foreshadows the major themes that would captivate his attention and drive his theoretical work for years to come.

Although *Basic Elements* was not submitted for Bogdanov's degree at Kharkov, Nikolai Krementsov argues that it was likely prepared for that purpose initially as it is written in the form of a dissertation, with a general introduction, four main chapters, and a conclusion. In terms of content, the book can also be seen as an elaboration on the interests of his professors at Kharkov: Iakov Anfimov's research focused on the anatomy and physiology of the central nervous system, Fedor Selenogorskii was particularly interested in establishing a common method for all inquiry, and Kliment Timiriazev was a champion of Darwinism and monism.<sup>32</sup> Bogdanov developed each of these themes, with the new addition of Marx's historical materialism.

Bogdanov's personal life also took a decisive turn during this period, when he met Natalia Bogdanova Korsak at the Tula home of childhood friend V. I. Bazarov in 1896. Natalia, from whom Alexander adopted the name Bogdanov, "was soon to become his fiancée."<sup>33</sup> Natalia was educated and licensed to teach. She had hoped to become a doctor but was refused admission to the university due to gender-based discrimination. She was able to obtain the less prestigious positions of medical orderly and midwife, however, and practiced medicine in this capacity. Natalia was also revolutionary-minded, and she collaborated with Alexander on political and literary work, copyediting several editions of the *Short Course*. Eight years his senior, she was also able to provide financial assistance for these activities.<sup>34</sup> Alexander and Natalia were married by the



Kaluga river in July of 1900, and they were joined in Kaluga by several friends of the revolution including Bazarov, Skvortsov-Stepanov, and a new friend, Anatolii Lunacharsky, who would become his close collaborator and brother-in-law. Both Bogdanov and Lunacharsky were interested in the philosophy of Ernst Mach and Richard Avenarius, the evolutionary theory of Charles Darwin and Herbert Spencer, and Karl Marx's historical materialism.

### **Second Arrest**

The second time Bogdanov was arrested, he was a student at Kharkov University. Although Kharkov was down south in the Ukraine, Bogdanov traveled regularly back and forth to Tula, spending only a few months out of each year on his studies. The rest of his time he spent visiting Natalia, who still lived in Tula, and teaching political economy among the workers. Exile from Moscow had not caused Bogdanov to reassess his organizing activities and rejoin the tsarist regime as a loyal servant. On the contrary, it had only radicalized him further, and wherever he went he found plenty of opportunities to grow as a revolutionary intellectual.

In the late 1880s, as Tula began to develop an industrial working class along the lines described by Marx in *Capital*, the town became an organizing ground for Social-Democratic circles. Production on the scale required for modern metalworking factories brought together increasingly large numbers of workers, and the radical intellectuals gathered these workers together in study groups when their working hours were done. A dozen or so dues-collecting worker's circles were formed in these years, establishing a

significant presence in the town despite their clandestine status. Over time, many of the original organizers were arrested and exiled from Tula, but the Tula socialists had always emphasized that their role was transitory. In the end, the workers must liberate themselves, and the radicalized workers in Tula were accustomed to taking initiative. In 1895 when Bogdanov arrived back in Tula, they took the initiative to recruit him and his friends into the movement. A year later, he was joined by his friend Vladimir Bazarov and by the Moscow University rabble-rouser I. I. Skortsov-Stepanov (having just served a six-month sentence for involvement in a plot to assassinate Nicholas II). He would continue to work with both for decades to come.

Like the organizers who came before him, Bogdanov was eventually arrested for conducting “propaganda” among the workers. That is, he was arrested for teaching groups of workers the basics of political economy—more specifically, for teaching his own textbook, the first edition of *A Short Course of Economic Science*. It was only through his experience in the worker’s circles that Bogdanov had become a Marxist, and already by 1897 he had written Russia’s finest introductory textbook for teaching Marxian historical materialism. By submitting to the dictates of tsarist censorship and eliminating any reference to Marx or his Russian interpreters (Sieber, Chernyshevsky, Plekhanov, etc.), and with a little smooth talking from Skortsov-Stepanov, they even managed to get it published. But as a teaching tool, it also got him arrested. He had been teaching workers in the woods of Tula for almost four years when he was caught. Guilty as charged.

Bogdanov's sentence was delivered in December—exile to Vologda for three years. Vologda was far from Moscow and St. Petersburg, and it had “very little industry and no institutions of higher education,” which made it more difficult to engaged in revolutionary activity.<sup>35</sup> On the other hand, it had also become a common destination for political exiles. Upon his arrival, Bogdanov discovered a lively culture of revolutionary thought and debate arising from several perspectives and party programs. It was a veritable “Athens of the North,” according to the novelist Alexander Remizov.<sup>36</sup> Fortuitously, a large contingent of exiles from Kiev had arrived a short time before Bogdanov, following the first Congress of the Russian Social-Democratic Labour Party (RSDLP). Bogdanov engaged in debates about historical materialism, realism and idealism, neo-Kantianism and positivism, both as a lecturer and in writing. He developed ideas from *Basic Elements* in a 1901 book, *Perception from the Historical Point of View*, and polemicized against idealism in a 1904 collection entitled *Studies in the Realist World View*.

Bogdanov was also in regular contact with revolutionaries outside of Vologda, notably the editorial board of *Iskra*, including Lenin and Georgi Plekhanov. The alliance was uneasy as Lenin and Plekhanov rejected Bogdanov's philosophy but shared his stance against “revisionism”—the view that a revolutionary rupture is not necessary to overthrow bourgeois domination of the state. Moreover, both men knew that philosophy and politics cannot be neatly divided. Nonetheless, Bogdanov was the secretary of a Social Democratic literary group in Vologda, and they agree to collaborate with him on

the writing of pamphlets on topics of “militarism, serfdom, autocracy, the church and state, the school and the state, municipal self-government and Leo Tolstoy.”<sup>37</sup> The Social-Democratic movement in Russia was still quite small and could not afford to reject collaboration with fellow revolutionary Social-Democrats. After traveling to Vologda to meet with Bogdanov’s group, Lydia Dan assured the editorial board that they could be trusted entirely, and the collaboration should proceed.

### **The Russian Social Democratic Labor Party**

The editorial board of *Iskra*—Lenin, Plekhanov, Martov, Axelrod, Zasulich, and Potresov—had started the underground newspaper with the intention of coalescing into the nucleus of a revolutionary Marxist party in the Russian Empire: the Russian Social-Democratic Labor Party. The RSDLP distinguished itself from the other political groups in several ways. They were clearly and directly opposed to the conservatives who celebrated the existing order, the aristocracy, and the full autocratic power of the tsar. They also rejected liberal reformers who sought a slow transition toward liberal monarchy, broadening the institution of private property to the peasantry and expansion of infrastructure to promote business. Among radical groups, they criticized neo-populism for romanticizing the peasantry and for lack of analytical rigor; “Economism” for focusing on economic issues in the trade unions to the exclusion of broader social issues; and “Legal Marxism” for its conviction that capitalism would evolve peacefully toward socialism without a revolutionary crisis, as well as their practical program of collaborating with the bourgeoisie to bring this about. The RSDLP was Marxist in

philosophy, revolutionary rather than reformist, centralized in preparation for illegal underground agitation, and oriented to the whole society as opposed to strictly workerist.

After their Second Party Congress in 1903, the RSDLP was also divided internally into Bolshevik and Menshevik factions. The split arose over competing definitions of party membership in Article One of the Party Statute. Lenin's wording indicated that membership required personal participation in a party organization, whereas Martov's asserted a vaguer requirement of direction by a party organization. Martov's definition won the vote, but a schism between those voting with Lenin and those with Martov had emerged. Then the composition of the Congress changed. The Union of Russian Social Democrats Abroad was dissolved, and the Bundists (secular Jewish socialists, largely based in Lithuania) left when their demands were not met. This left Lenin's faction with more votes, and they effectively controlled much of the meeting as a bloc. This faction was then termed "Bolsheviks," meaning majority, while the losing position were in the minority, hence "Mensheviks." To several observers the reasons for the split were hard to detect, and they hoped that factionalism in the party would be resolved rather than deepened.

For his part, Bogdanov felt that the split was overblown and should be reconciled, though he tended toward the majority side. When his term of exile had expired in 1904, Bogdanov had taken up practical work as a committee member of the RSDLP in Tver. In that capacity he became apprised of the situation on the ground, and "it was he who conducted the correspondence with the party leadership abroad, Lenin

and Krupskaya.”<sup>38</sup> However, Bogdanov’s reasons for supporting the majority view were largely distinct from Lenin’s even if their practical conclusions were similar. Bogdanov would have preferred to eliminate factionalism from the party, but he also believed in majority rule, and therefore, that the Mensheviks who refused to abide with the majority decisions of the Congress were out of order. To reject the decisions of the majority was anti-democratic.

Moreover, Bogdanov argued that the Menshevik views sometimes predominated among the émigré community because the émigrés were primarily intellectuals, whereas the Bolshevik views were held among the workers in Russia, who made up the majority of party members. On points of theory, Bogdanov argued contra Karl Kautsky that the centralization implied by Lenin’s definition of party membership was crucial given the existing decentralization of Russian society. Indeed, he even went beyond Lenin in this dimension. Despite Bogdanov’s well known critiques of authority, he had written an article for *Iskra* that so forcefully advocated for “the dictatorship of one member of the committee” that Lenin rejected it as “inappropriate and tactless.”<sup>39</sup> In effect, Bogdanov proposed the principles that would come to be known in the Fourth Congress of 1906 as “democratic centralism.”

Ultimately Bogdanov hoped to ameliorate the split, but he had also taken a position in favor of the majority line of the RSDLP, leading to a tactical alliance with Lenin. This tactical alliance was expressed in a collaboratively written article which called for a new party congress and the creation of Bolshevik institutions to carry out

this task: the Bureau of the Committees of the Majority (BCM) and a new periodical called *Vpered*, meaning “forward” or “advance.” Leadership of these institutions was established by election, with Bogdanov being elected to BCM and Lenin as editor of *Vpered*. Their program was to reestablish working relations with the Mensheviks (although there were differing views on the likelihood of this event), to enshrine a set of minority rights in the party to institutionalize the expression of dissenting views, and to ensure disciplined obedience to democratically made decisions in carrying out party work. Bogdanov and the BCM would work within Russia, while Lenin and *Vpered* would operate from abroad.

### **The Russo-Japanese War**

The Russian Empire was at war for most of Alexander Bogdanov’s life. From 1877 to 1878, and again from 1897 to 1898, Russian troops were deployed to conflicts with the Ottoman Empire. First in the Balkans and the Caucasus and then in Crete, Russian forces backed separatist movements to establish formal political independence in Serbia, Montenegro, Romania, and Crete, and they annexed territories in Kars and Batum. In 1899–1901, Russian soldiers fought alongside Germany, France, Japan, the UK, and the US to put down the Boxer Rebellion in China. From 1902 to 1906, Tsar Nicholas II sent troops to put down the Rebellion in Guria, an independence movement of the Gurian Republic in western Georgia. It was not until 1905 that Bogdanov saw the Russian Empire defeated.

The Russo-Japanese War of 1904–1905 was an inter-imperialist conflict stoked by sentiments of Russian chauvinism and White supremacy. Tsar Nicholas referred to the Japanese as “little monkeys,” and he considered it impossible to lose in a war against men he thought of as “feminine, weak, and inferior.”<sup>40</sup> Thus, despite the major strategic disadvantage faced by the Russian Navy, which had to travel for months before reaching the front lines, Nicholas maintained supreme confidence that Russia would triumph. As his advisors well knew, that confidence was misplaced, but the advice of experts, military men, and bureaucrats was powerless against the autocrat. The legitimacy of tsardom was founded on the personal power of the tsar, St. Nicholas the Passion-Bearer, Emperor of Russia, King of Congress Poland, Grand Duke of Finland. And so, Russia went to war.

Not only did Russia fail to win the war, but the Russian state also faced internal unrest as a result. The Russo-Japanese War was a major catalyst for the Russian Revolution of 1905, a worker’s rebellion of unprecedented scale and ferocity. As Rosa Luxemburg documented during her stay with Bogdanov and Lenin in Finland the following year, the 1905 Revolution saw wave after wave of strikes, victories by the workers, and concessions from the bosses and the tsar. Newly won freedoms gave rise to “demonstrations, meetings, a young press, public discussions and bloody massacres as the end of the story, and thereupon new mass strikes and demonstrations.”<sup>41</sup>



## **The 1905 Revolution**

Revolutionary fervor billowed from every smokestack, printshop, railway, and peasant commune and shook the Russian autocracy to its rotten core. Bogdanov called the 1905 Revolution the “Great Upheaval,” and Lenin later dubbed it the Great Dress Rehearsal, without which 1917 would have been impossible. Of course, there was no guarantee that 1905 would lead to 1917, and the moniker of “dress rehearsal” could only be claimed in retrospect. “Historical necessity” is made to appear with the benefit of hindsight. In the moment, there is only the open field of probabilities, and while the conditions are not of our own making, we forever remain the makers of history. In 1905, it happened that the senior leadership of most socialist parties, from the Bolsheviks and the Mensheviks to the Socialist Revolutionaries, were living in exile from their native Russia, and the socialist movement was ill prepared to lead a revolutionary seizure of state power. They did not light the spark that set Russia ablaze, and they were not capable of delivering the finishing blow to a beleaguered and war-weary Romanov regime. Nonetheless, 1905 was full of passionate debates and lessons learned in strategy and tactics, philosophy and praxis.

Since the great reforms of 1861, a liberal culture had been steadily developing in Russia. In the time between Emancipation and WWI, “the number of university students in Russia grew from 5,000 to 69,000 (45 per cent of them women); the number of daily newspapers rose from 13 to 856; and the number of public bodies from 250 to over 16,000.”<sup>42</sup> Liberals working in the public administration of Russian municipalities—the

liberal “zemstvo” men—had been struck by the misery and poverty of the peasants and had undertaken to build infrastructure ameliorating these issues. Tolstoy had written popular and impassioned criticisms of this miserable state of affairs, and in the wake of a serious famine he “gave up his writing to join the relief campaign.”<sup>43</sup> Educated professionals who had joined such campaigns began to make demands for further political reform, and liberalism grew stronger.

The liberal trends in Russia were divided into moderate and radical wings. The trends diverged in politics and demographic composition, and in 1905 they had been consolidated in two representative parties. The moderates became the Octobrist party, composed of “the more progressive landowners and industrialists.”<sup>44</sup> The radicals, which emerged from the professional class and university students, became the Constitutional Democrat or “Kadet” party. Nicholas II had scoffed at the liberal demands for reform and reasserted his autocratic power, working to undermine local control in the zemstvos (local government councils) where he could. In response, the liberals had become more organized in preparation to seriously challenge his authority.

Peasant culture was an odd mixture of traditional and modern life. Emancipation had made serfs into peasants, changing their relationship to the land, to each other, and to the urban centers. As they gained access to small amounts of money, they became less likely to make goods that could be purchased cheaply and more likely to produce commodities for sale. The amount of land owned by the aristocracy had shrunk by almost 10 percent as peasants purchased private tracts to farm, but the land was often

purchased on credit, which left them hopelessly mired in debt. In some cases, their real quality of life was poorer than it had been under the domination of feudal lords. As rentier capitalists, the landlords were no less exacting or exploitative. Figes argues that the “geographic pattern in peasant—gentry land relations...helps to explain the distinctive distribution of agrarian violence during the revolution,” which was concentrated in areas where the development of commercial farming drove up the price of land, and down the price of life.<sup>45</sup>

Socialist organization and culture also grew among the students, radical intelligentsia, and workers. In 1905, membership in the RSDLP was still quite small with about 8,400 members, but they could bring out tens of thousands for protests and strikes. Even before the party had formed, its leading members had organized major strikes. Lenin and Martov, for instance, had been involved in organizing a strike among textile workers in 1896, involving some 30,000 workers.<sup>46</sup> They wrote leaflets connecting the economic demands of the workers to political demands on the state and by 1897 saw progress in legal limitations of working hours. At the turn of the century, however, an industrial crisis led to reduction in wages, increased unemployment, and great frustration among workers. By 1903, the RSDLP was stepping up their role in major worker’s struggles across the Empire.

As a committee member of the RSDLP in St. Petersburg and of the BCM, Bogdanov had an important role to play among the socialists, forming party policy and producing propaganda. Strike activity increased rapidly from about 25,000 strikers in

1904, the first year of the Russo-Japanese war, to 2.8 million in 1905.<sup>47</sup> The RSDLP had not participated in organizing the strike at Putilov Works on January 3, but as that demonstration transformed into a general strike throughout St. Petersburg, they called on all workers to join the strike and to prolong it. On January 6, the RSDLP was informed that a procession to the Winter Palace to petition the tsar was being organized by Father Gapon, the young priest and labor organizer who had called the Putilov strike. Bogdanov met with the committee, and they decided to participate in the procession, carrying arms and an RSDLP banner to unfurl upon confrontation with the police and military. On January 9, they marched with the procession to the Winter Palace and were met with violence. On that “Bloody Sunday” the authorities opened fire on the crowd, “killing at least 130 people and wounding several hundred.”<sup>48</sup> With that, the 1905 Revolution had begun.

Bogdanov led the St. Petersburg committee in producing leaflets highlighting the lessons of Bloody Sunday and of subsequent events as the revolutionary upsurge spread. The first RSDLP leaflet expressed horror and anger at the massacre, insisting that any further appeals to the tsar would be pointless. Bloody Sunday had taught the workers that demands must be won from the autocracy by force, not by pleading. The message was clear: “Comrades! With weapons in your hands come and join the RSDLP and its Petersburg Committee.”<sup>49</sup> They called for the general strike to continue and for the soldiers to join the strike as fellow oppressed workers. When the tsar offered an official commission for workers to express grievances, the RSDLP responded with a set of

strong conditions on participation, and when these conditions were not met the commission was disbanded.

The RSDLP had offered ideological leadership to segments of the working class, but the party was unable to elevate the uprising into a socialist revolution. Bogdanov saw that the party was not prepared for this task, and he called for another congress that would debate methods of struggle, relations to the liberal parties, and relations to the national socialist parties. He also made several arguments about how to resolve these questions. He argued that the party should be defined by strict membership rules and centralization in Russia, non-cooperation with liberal parties, and granting a higher degree of autonomy and separate identity for the national parties.<sup>50</sup>

Many of these recommendations would be taken up in fact when the Third Party Congress was convened in late April. The Mensheviks boycotted the Congress and held their own in Geneva, but James D. White describes the London Congress of Bolsheviks as largely a ratification of proposals previously made by Bogdanov or jointly by Bogdanov and Lenin, though some of their proposals were disputed or rejected. At its conclusion, the Congress had come to tactical and strategic agreements, placed limits on party membership, reduced the three organizational centers (the Central Committee, the Central Organ, and the Party Council) to a single Central Committee, and promised a new set of minority rights.

Still, the split with the Menshevik faction was unhealed, dividing the ideological clarity and organizational effectiveness of the RSDLP among Russian workers. This lack

of unity was reflected in action on May 1, Labor Day. Many hoped that May Day would be the perfect moment for an armed uprising. The Menshevik faction argued on behalf of this program, calling on the working class to arm itself for an attack on the tsarist government. The Bolsheviks urged caution, arguing that workers had insufficient arms to mount a successful attack and could not yet count on the military to join the workers in the struggle, which would turn the tide. As a result, party members and fellow travelers were confused by mixed messages. There was no armed assault, but there was great frustration. Meanwhile, the general strike had subsided but strikes at individual workplaces continued, as did rebellions in the countryside among the peasants.

The many spontaneous acts of resistance in 1905 were not organized into a unified and coherent force, but they provoked a great deal of fear and various concessions from the tsar. In August, the universities were given autonomy, which meant that police could not enter and disrupt meetings unless invited in. This led to massive meetings and propaganda among liberals and socialists alike. A few months later in October, a new general strike arose “involving white-collar as well as industrial workers.”<sup>51</sup> Once again, the RSDLP sought to give unified expression to this force. On October 17, they formed a coordinating organization on democratic lines, with approximately one delegate per 500 workers, and elected an Executive Committee of fifty members, which included representatives of both factions of the RSDLP (Bogdanov representing the Bolsheviks), the Socialist Revolutionaries, and unaffiliated radical

orators like Khrustalev-Nosar, who became its chairman. This organization was called the St. Petersburg Soviet.

On the same day the St. Petersburg Soviet elected its Executive Committee, the tsar made a series of deeper concessions to the liberals, granting broader rights for freedom of speech, press, and assembly, and establishing a democratically elected legislative body, the Duma. Tsar Nicholas II had been instructed by his advisers that such reforms were the only alternative to military dictatorship, and his top military advisers believed that in present conditions, the disgruntled military might not be willing to carry out the mass repression needed to quell the general strike. Soviets, or workers' "councils," spread throughout the country, taking St. Petersburg as a model. In at least fifty other cities, workers were inspired to form soviets of their own. They published newspapers, organized militias, distributed food, and organized strikes. The Bolsheviks purchased a newspaper which, by the end of October, had reached "a circulation of 80,000 copies, an unprecedented figure for the times."<sup>52</sup>

Momentum seemed to be with the Soviets, but in fact the reforms had been effective at undermining support for revolutionary action. In late November and early December, the government arrested Khrustalev-Nosar and then the entire Soviet Executive Committee. Workers and peasants were terrified by the ultra-nationalist and anti-Semitic pogroms of the Black Hundreds, which were encouraged by the tsar. The wave of strikes declined by more than two thirds from 1905 to 1907, and soon dwindled from the high of 1.8 million strikers in 1905 to merely four thousand by 1910.<sup>53</sup> The tsar

had appeased the liberals, arrested the socialists, and ruthlessly repressed workers and peasant rebellions by flogging, shooting, and hanging the agitators.

### **Third Arrest**

Following his arrest for participation in the St. Petersburg Soviet, Bogdanov was sent to Kresty Prison for six months, during which time he wrote a ninth edition of the *Short Course* and completed his *Empiriomonism* trilogy, which he had begun during exile in Vologda in 1903. Now writing from his St. Petersburg jail cell, he did not have access to many sources but, with thanks to “His Majesty,” he did have “the leisure time for it.”<sup>54</sup> His productivity was also thanks to his wife Natalia and a prison guard, who helped smuggle materials in and out of the prison.

Reflecting on the whirlwind of 1905 in the preface of *Empiriomonism*, Book 3, Bogdanov comments that some comrades reject the importance of philosophy at such a time. He counters this position decisively, writing that “the significance of a philosophically-supported worldview grows in proportion to the intensity of the life that surrounds us and the importance of the events that are unfolding and in which we must participate.”<sup>55</sup> Like the scientist and positivist philosopher Ernst Mach, whose influence on Bogdanov’s philosophy looms almost as large as that of Marx, Bogdanov viewed philosophy as arising from and responding to the demands of practical life. Moreover, as the political objective was still distant on the horizon, he thought the wide breadth of philosophy was entirely appropriate to the circumstances.



In *Empiriomonism Books 1–3*, Bogdanov constructed a monist philosophy of experience to complement historical materialism in establishing the relationships among nature, technology, economy, and consciousness. Developing further the major themes from *Basic Elements* and *Perception from the Historical Point of View*, Bogdanov set out to overcome the dualism of the “physical” and the “psychical” in favor of monist experience, to reject Kant’s “thing-in-itself” in favor of “universal substitution,” and to ground Marx’s historical materialism in the most recent advances of natural science and positivist philosophy.

### **The Published Author**

When he was released from prison in May of 1906, Bogdanov moved with his family into the upstairs of a large summer home in Kuokkala, a Finnish village on the boarder of Russia where Lenin and his family were living at the time. The Fourth Party Congress of the RSDLP had taken place just a month earlier, and Bogdanov was updated on the proceedings. The Bolshevik and Menshevik factions had been re-united, as Bogdanov had hoped, and had adopted his earlier proposals of extending democratic elections wherever possible in party organizations while maintaining a comradely centralism in executing majority decisions.

Once again, though, all was not as it seemed. The re-unification of the party soon re-ignited an old alliance between Plekhanov and Lenin, who both disagreed with Bogdanov’s position on the State Duma and expressed a bitter distaste for his philosophy. In the third book of *Empiriomonism*, Bogdanov had rejected the materialism

of “matter” adopted by Lenin and Plekhanov as fetishistic, metaphysical, and bourgeois. At the same time, Bogdanov’s philosophy gave place of privilege to communication in establishing “physical” reality, which the “materialists” could understand only as idealism of the worst kind. For now, their agreement to a truce in philosophy would hold, but only for a time.

In 1908, Bogdanov made a foray into literature with his first novel, *Red Star*. Bogdanov recognized the communicative power of art, and he saw literature as a useful point of influence. Recalling the importance of populist literature on shaping and developing the national culture, this should not be surprising. Literature was especially useful, given the more lenient position of the tsar on censoring fiction. According to Figes,

Allowing the publication of Chernyshevsky’s novel [*What is to be Done?*] was one of the biggest mistakes the tsarist censor ever made: for it converted more people to the cause of the revolution than all the works of Marx and Engels put together (Marx himself learned Russian in order to read it). Plekhanov, the ‘founder of Russian Marxism’, said that from the novel ‘we have all drawn moral strength and faith in a better future’. The revolutionary theorist Tkachev called it the ‘gospel’ of the movement; Kropotkin the ‘banner of Russian youth’.<sup>56</sup>

Lenin is said to have read *What is to be Done?* five times, and a young Lunacharsky had joined other Social Democrats in reading it alongside Chernyshevsky’s notes on political economy. As later scholars have commented, Bogdanov’s talent was for philosophy and not literature, and his style left much to be desired. His novel did not achieve the kind of success that Chernyshevsky’s did, never mind Tolstoy, but it did have a lasting impression on many workers and Bolsheviks for years to come.

*Red Star*, Bogdanov's short science-fiction novel, sought to revive the revolutionary fervor of 1905 with an inspiring vision of the socialist future that had already been realized on Mars. Utopian, fantastical, and romantic, the story was meant to capture the attention of a popular audience, but it also addressed important political questions about the meaning and form of a collectivist society. For Bogdanov, this meant that democratic social planning would be used to overcome the fragmentation of bourgeois specialization through general methods, to eliminate the division between mental and manual labor, eliminate legal and moral compulsion, and establish the complete equality of the sexes. Socialist planning would thereby create the conditions for deep and lasting mutual understanding. As White remarks, Bogdanov's vision of "the socialist economy is highly significant as it is practically the only place in pre-revolutionary literature that the subject is touched upon."<sup>57</sup> The other place is in the *Short Course*, which had also sketched the outlines of a future socialist society. Both texts were reprinted en masse after the October Revolution of 1917, and both shaped the popular and intellectual culture of early Soviet society.

Lenin was also working on an influential text in 1908, published the following year as *Materialism and Empiriocriticism*. Written in Lenin's characteristically sharp and polemical style of ideological warfare, its editors demanded that "the personal abuse that abounded in the book should be toned down" prior to publication.<sup>58</sup> In fact, Bogdanov had seen a draft of the text in 1907 and had returned it to Lenin, telling him that to continue their alliance it would have to be considered "unwritten, unsent and

unread.”<sup>59</sup> Bogdanov was among the primary targets of such abuse as the purpose of Lenin’s text was to defend Plekhanov’s interpretation of materialism.

### **Life as a Bolshevik**

Philosophical and political differences between Bogdanov and Lenin had begun to assume a more polemical form, and the breakdown of their working relationship was accelerated in 1907 by the Erivansky Square expropriation, also known as the Tiflis bank robbery. Whereas the Menshevik faction of the RSDLP condemned all “expropriations” as unnecessarily dangerous underground work, the Bolsheviks continued to raise money for party work by these means. The Erivansky Square expropriation was organized by Bogdanov, Lenin, and Leonid Krasin and executed by “Kamo,” an associate of Joseph Stalin. On June 26, Kamo’s crew attacked a bank stagecoach and escaped with a small fortune of 241,000 rubles, of which 218,000 was entrusted to Krasin, Lenin, and Bogdanov—funds they used to start the newspaper *Proletarii* in 1908.<sup>60</sup> Due to increasing repression and risks of arrest in the years following 1905, Lenin and Bogdanov fled Finland for Geneva, and the group chose to publish the newspaper from abroad.

In 1907, the Fifth Congress of the RSDLP was held, and whereas Bogdanov led the Bolshevik faction in rejecting participation in the State Duma, Lenin spoke and voted against the faction in what Bogdanov considered to be an egregious breach of democratic discipline. From then on, Bogdanov would begin to appear to Lenin as more of a political threat for leadership of the faction and less as an ally. Throughout that year

and into the next, Lenin would also begin to join with Plekhanov and his followers in denouncing Bogdanov's *Empiriomonism* with great ferocity. Maxim Gorky and Maria Andreeva, who generously funded a great deal of party work, believed that "empiriomonism was the ideology of the RSDLP" and told Bogdanov to ignore the "petty" and "impotent" criticism of Plekhanov and his disciples.<sup>61</sup> Bogdanov, however, was drawn into the polemic all the same. Nor would Lenin allow the dispute to subside—even dispatching Dubrovinsky, a member of the *Proletarii* board, to issue an accusatory and sectional diatribe during the question-and-answer period at one of Bogdanov's public lectures. Further, Lenin and Dubrovinsky added an editorial note to an article written by Bogdanov which falsified his views and refused to print a correction. They were finally forced to accept his resignation in protest.

In 1908, Lenin managed to acquire an additional 200,000 rubles for party work, this time from Nikolai Shmit, who owned a furniture factory in Moscow. However, the money would not be managed by the Bolshevik financial group of himself, Bogdanov, and Krasin. Instead, the group consisted of Lenin, Zinoviev, Kamenev, and Taratuta. This grouping became decisive in the break between Lenin and Bogdanov after the Fifth Conference in Paris. As White explains: "Normally an all-party conference would have been followed by a conference of the Bolshevik fraction, but this did not take place as it was cancelled by Lenin...Taratuta, Kamenev and Zinoviev," who together formed a majority among the Bolshevik Center.<sup>62</sup> This clique in the Bolshevik Center began to selectively fund local committees based on their fidelity to the clique rather than on the

party line. Bogdanov saw this as the formation of a separate organization and called for justification of this behavior, but to no avail. Lenin shot back with accusations that Bogdanov and Krasin had mishandled the Erivansky Square funds, and his clique in the Bolshevik Center upheld this accusation. Bogdanov rejected their claims to authority on the matter, and tensions continued to rise.

In 1909, Bogdanov joined several other Bolsheviks—Bazarov, Lunacharsky, and Gorky among them—in the formation of a party school for Social-Democrats held on the island of Capri. After the revolutionary tide had subsided, much of the intelligentsia had left the RSDLP for the liberal parties, and the workers had asked for a party school to provide the practical, administrative, and theoretical skills their organizations now lacked. This educational program fit perfectly with Bogdanov's conception of education for the creation of an independent working-class movement. However, it did not help ameliorate tensions with Lenin, who saw the school as an attempt to form a new faction apart from his consolidated hold on the Bolsheviks. In June of 1909, a meeting of the Bolshevik Center was held in which, according to James D. White, ideological conformity was demanded of faction members for the first time. No longer only a unity of action but a unity of opinion was demanded. They proceeded to question Bogdanov on every deviance from the positions that Lenin's clique had adopted in the past months. At its conclusion, Bogdanov was expelled from the Bolshevik Center.

Heedless of his expulsion, and with some confidence that it would be overturned by a general congress of the party, Bogdanov continued his party work with the First Higher Social-Democrat Propagandist and Agitational School in August of 1909. In a gesture promising that the school would not be a new faction, nor would it exclusively promote Bogdanov's positions in philosophy, they invited both Lenin and Plekhanov to teach at the school, along with several other members of the Bolshevik Center, though both declined. The school was "organized along democratic lines with a School Council consisting of the students and lectures, each with a vote, and an Executive Commission of three students and two lecturers to carry on the day-to-day running of the school."<sup>63</sup>

Students took classes in political economy from Bogdanov, as well as history of Russia, Russian literature, the Russian Social-Democrats, and aspects of the party program on the agrarian question and on trade unions and finance. As White observes, they were also schooled in various communicative techniques, including "public speaking, the conduct of meetings, and the techniques of newspaper printing."<sup>64</sup> Bogdanov still believed that the next revolutionary moment was near on the horizon, and students at the school had to be ready with the knowledge and skills to organize and propagandize for emancipation on their own behalf, without depending on the whims of the radical intelligentsia.

Bogdanov also continued to write during this period. In 1907 through 1909, he was the general editor of a new translation of the three volumes of Marx's *Capital*, for which he provided translators and wrote forwards. In 1909, he collaborated in creating

the *Vpered* literary group, which analyzed the contemporary political situation in Russia and argued that revolutionary workers must be at the forefront of creating a proletarian culture of philosophy, art, science, and working relations, characterized by comradely discipline and comradely criticism. In 1910, he wrote replies to Lenin's *Materialism and Empiriocriticism* in which he clarified his position on "speech as an essential component of production" and criticized Lenin for treating Marx and Engels as authorities to obey, rather than comrades whose ideas should be understood and critiqued or defended on their merits.<sup>65</sup>

### **The Russian Intellectual**

In 1913, Bogdanov published *Engineer Menni, The Philosophy of Living Experience: Popular Outlines (TPLE)*, and part one of *Tectology, The Universal Science of Organization*. *Engineer Menni*, a short prequel to his novel *Red Star*, focused on the long stage of capitalist development on Mars which has preceded the socialist transition. Once again, Bogdanov attempted to provide a literary form to reflect on contemporary problems in the socialist movement: this time, a situation in which revolutionary fervor had seriously dissipated and Tsar Nicholas III was confidently celebrating the tercentenary of Romanov rule. *The Philosophy of Living Experience* was a book of philosophical history, and it took up the challenge of explaining the practical import of philosophy, the critical social history of philosophical materialism, and the significance of Bogdanov's empiriomonism for the working class. David G. Rowley suggests that much like the *Short Course*, *The Philosophy of Living Experience* "was very likely based



on lectures he gave at the two workers' schools."<sup>66</sup> Unlike the three volumes of *Empiriomonism*, the new book was written in a more accessible style. As Rowley points out, Bogdanov had also begun work on *Tektology* at this time, and this is evident in the text by the privileged place that the concept of *organization* is given in the text.

*Tektology* was the crown jewel of this period. In Bogdanov's view, it marked a passage in his working life from philosophy to science. It was also a fulfillment of his belief that the democratic style of exposition was not merely a popularization of specialized knowledge but the overcoming of that fragmentation in a uni-disciplinary synthesis.

Bogdanov's *Tektology* is a precursor of general systems theory (GST) and cybernetics—the science of “communication and control” as Norbert Wiener put it. Unlike these latter theories, however, *Tektology* was created with an explicitly political aim of overcoming the fundamental division of class society into “organizers” on the one hand and “implementers” on the other. By creating unified general methods, Bogdanov hoped to overcome the fragmentation of knowledge that had emerged from the anarchy of bourgeois individualism and establish a paradigm to unite and elevate the workers of the world in enlightened self-governance. According to Bogdanov, everything in existence is an organizational activity, and the task of science is to discover the principles of this organization such that competition and anarchy may be progressively resolved into unity and cooperation. The division and struggle among people would be resolved in understanding, the unified organization of their ideas. Through mutual understanding, comradely cooperation would become the norm, everyone would become

an active participant in producing socially organized experience, and the division between those who give orders and those who carry them out would recede into the past.

### **World War I**

Bogdanov saw the frontlines of battle for the first time in 1914 with the onset of the First World War. Having completed his medical courses at Kharkov University and worked for a time at a psychiatric hospital in Kuvshinov, Bogdanov was assigned to be a junior doctor in the Second Army of the 221<sup>st</sup> Roslavl'sky Infantry Regiment. Early in that first year, he narrowly escaped death when the Second Army was encircled by the Germans at Tannenberg. He was even involved in some minor heroics, leading a successful retreat of his medical convoy after the head physician was captured. Mostly, though, his time on the front was more peaceful than he had expected. At moments, he even counted it as a reprieve from the unceasing intellectual and political labors that had consumed him for the previous decade. In this, he was extremely fortunate. With over two million dead before withdrawal from the war, Russia suffered more casualties than any of the allied nations. By the end of the year, however, any sense of reprieve was long gone; Bogdanov had to be withdrawn from the frontline after he “contracted a nervous disease involving skin eruptions, requiring intensive treatment in a Moscow clinic.”<sup>67</sup> Thereafter, he remained in the Moscow region to serve as a junior surgeon in an evacuation hospital and then as a medical inspector for prisoner-of-war camps.

For the Russian Empire, WWI was an opportunity to exercise the fantasy of world domination and to reverse the embarrassment they had suffered in the Russo-

Japanese War of 1904–1905. But to the tsar’s dismay, WWI would be even more disastrous for the Russian autocracy than the defeat a decade prior. In 1914, Russia was still lacking in infrastructure and industry that had become the norm in Western Europe, and thus it was “universally regarded as backward by comparison with Britain, Germany, and France.”<sup>68</sup> There was a growing capitalist class among the landlords who owned factories, but it was relatively weak in comparison to that of Western Europe. Indeed, the development of Russian capitalism was hobbled by its peripheral status in the world market as compared to Western Europe, a condition that had transformed Russian cities into administrative centers for foreign trade and not centers of industrial production.<sup>69</sup>

Mired in a semi-feudal state of underdevelopment, Russia found itself woefully unprepared for modern warfare. As Bogdanov would attest from his personal experience, the soldiers were poorly trained, and by the end of the war they were lucky to be trained at all. Bogdanov complained that Russian soldiers would burn anything left behind by the Germans, including much needed resources that could have been used by the advancing Russian military. Telegraphic communications with the front broke down frequently due to lack of repairmen, and on at least one occasion officers followed the broken lines only to discover “a party of soldiers cooking their tea on a bonfire made of chopped-up telegraph poles.”<sup>70</sup> Russian generals learned very quickly that the German army was more advanced in equipment, training, and tactics. All Russia could contribute, it seemed, were bodies for the slaughter.

The expansionist dreams of Tsar Nicholas II were not shared by the broad masses of the Russian people. Russians were prepared to defend the land from invasion, but low rates of literacy hindered the development of national sentiment. In consequence, Sheila Fitzpatrick argues that Russians of the period were “less inclined than others to outright patriotism, but most took the ‘defensist’ position of supporting Russia’s war effort as long as it was in defense of Russian territory.”<sup>71</sup> Some members of the radical intelligentsia took the more extreme “defeatist” position, demanding that Russia should withdraw from the war at any cost. Looking on from abroad, Lenin hoped that immediate withdrawal would send Russia into crisis and civil war —fertile conditions for revolutionary action. Indeed, Lenin hoped that civil war would spread across the continent in a series of proletarian revolutions. Bogdanov thought this position absurd, given that the European proletariat had voted for war only a few years earlier and had been decimated by repression since then. Moreover, having seen the front, he was convinced that beating too hasty a retreat would only lead to severe and unnecessary casualties.

As it happened, the most industrialized nations of Western Europe did not erupt in popular revolution, but Russia was another matter. Just as was the case in the Russo-Japanese war, an initial wave of popular enthusiasm was followed by frustration, weariness, and finally rebellion. By 1914, the autocracy had already become brittle from years of tense negotiation and struggle with the Kadets, Octoberists, RSDLP, and Socialist-Revolutionary Party. Sections of the Russian elite had become so discontent

with Russia's backwardness that the bureaucracy was ready to break. "The regime was so vulnerable to any kind of jolt or setback," writes Fitzpatrick, "that it is hard to imagine that it could have survived long, even without the War."<sup>72</sup> After two years of worsening conditions, the people of Moscow, St. Petersburg, and several other large cities organized major strikes and popular uprisings. The Russian people were starving, and millions rioted over the lack of even the most basic necessities. Nearly ten million Russian soldiers fared little better in gaining access to rations than their families back home, and they were deeply demoralized. When the troops were called in to subdue the civil unrest, "many units mutinied, and others were reluctant to fire on the crowd."<sup>73</sup> After 300 years of Romanov rule, the Russian Empire had entered its terminal crisis. Just a year before WWI ended, the Russian Revolution forced Tsar Nicholas II to abdicate the throne in February of 1917.

### **The 1917 Revolution**

In January of 1917, the Bolshevik leadership did not see signs of an imminent revolutionary struggle. Lenin and the Bolshevik faction had continued to pursue an electoral strategy in the state Duma, believing that the revolution was still a long way off. Even on January 22, as Lenin gave a speech to a group of young workers in Zurich reflecting on the revolutionary upheaval on that day in 1905, he told the assembled workers that the older generation of social democrats may not live to see the revolution. Moreover, in speaking of 1905, he aimed to illustrate that the apparent calm in Europe was a prelude to the great revolutionary storm. In other words, Lenin agreed with

Kautsky that the proletarian revolution would begin in Europe, where the proletariat was most developed, before returning to Russia.

When the revolution erupted in February, the Bolsheviks were caught off guard. As White points out, the lack of Bolshevik organization in the early revolutionary process was recorded in official history as “spontaneity” of the masses. However, archival evidence shows that workers who participated in the 1905 revolution, at least one of whom was a friend of Gorky and had been trained in the party school at Longjumeau, were involved in organizing demonstrations and battling the police in the week before Russian troops finally joined the revolutionary insurgency on February 27.<sup>74</sup> The group had even tried to form a Provisional Revolutionary Government, but the project was commandeered by Mensheviks seeking to renew the spirit of 1905 in the revolutionary institution of the Petrograd Soviet (formerly St. Petersburg Soviet).

In March, Tsar Nicholas Alexandrovich Romanov, the passion-bearer, Emperor of all Russia, abdicated the throne. Members of the third Duma formed a Provisional Government headed by a prince, a lawyer, an historian, and two industrialists. The transition of power was nearly seamless, but it remained problematic that the Provisional Government had neither formal legitimacy nor popular mandate. They also had to compete with the Petrograd Soviet (largely composed of Mensheviks and SRs). The Social Democrats had power in the street, among the soldiers, and the workers in the transportation and communication industries. Assessing the balance of forces, the war minister Alexander Guchkov wrote, “one can say flatly that the Provisional Government

exists only so long as it is permitted by the Soviet.”<sup>75</sup> In other words, despite the smooth transition of power in the tsarist bureaucracy and immediate recognition from foreign powers, the Provisional Government was not built to last.

Bogdanov had remained in military service as a doctor in Moscow throughout 1917, a position from which he was able to contribute articles to the Moscow Soviet’s publication. Bogdanov believed the socialists had erred by neglecting to participate in forming the coalition government and so alienating the liberals, a stance which had contributed to the counter-revolutionary turn of 1905. Non-participation had also ensured that the liberals would reaffirm their commitment to winning WWI for the allied forces rather than beginning an immediate peace process as advocated by the socialists. As a consequence, the Provisional Government did not reflect the interests of the working class, and it was not revolutionary in character. Thus, Bogdanov argued that the workers should struggle for a Constituent Assembly with universal enfranchisement to establish a truly democratic republic. From that point, a new government could wage the struggle for peace and the eight-hour workday.

In April, Lenin returned to Russia and wrote his “April Theses,” calling for a commune state based on the soviets—a soviet socialist republic. No longer operating as temporary revolutionary organizations, the soviets, Lenin proposed, would be permanent institutions of the new state; representatives would be paid at the level of average workers and subject to immediate recall. Lenin envisioned no higher authority than the soviets, which would work out issues among themselves. Bogdanov thought Lenin’s

program was utopian and maximalist, without sufficient analysis or organizational coherence. In the event, it was never implemented. However, debates over Lenin's influence in the Bolshevik organization demonstrated a troubling trend in Russian Social-Democracy toward fetishizing individual leaders. For instance, after a police spy was discovered in the Bolsheviks, Plekhanov argued that the faction's political line was determined by the police. In response, Meshkovsky insisted that "the Bolshevik line had always been determined by Lenin."<sup>76</sup> Indeed, after 1905 many Bolsheviks had taken to calling themselves "Leninists" and had allowed his recent "April Theses" to direct the Bolshevik line, despite the contradiction between Lenin's declaration and the existing Bolshevik line that had been democratically determined at party congresses. For Bogdanov, it was immaterial who determined the line; any individual empowered to direct the organization based on their sole authority was bound to make mistakes, and the organization would pay for its lack of democratic discipline. Evidently such discipline was sorely lacking, and Bogdanov called for a cultural revolution to address this pressing issue; however, like Lenin's political maximalism in the "Theses," Bogdanov's cultural maximalism was never fully realized.

In May, the link between the Provisional Government and the Petrograd Soviet was strengthened rather than severed as Mensheviks and Socialist Revolutionaries entered a coalition government with the liberals. In that sphere, the liberals retained a decisive majority vote and excluded socialist leadership on issues of policy, but as Fitzpatrick argues, taking the electoral line amid a revolutionary situation had created a



division between “the ‘responsible’ socialists” and “the ‘irresponsible’ popular revolution.”<sup>77</sup> Workers carried out demonstrations throughout the summer calling for Soviet power and were unsatisfied with the compromises made by existing Soviet leadership. Lenin’s “April Theses” had made a decisive break with the existing leadership, calling for a rejection of the Provisional Government with the slogan “All power to the Soviets!” and outlining a program that amounted to civil war of the proletariat and peasants against the bourgeoisie.

Although in June the Bolsheviks had failed to win any major city election in the Soviets, their ranks grew steadily. Workers’ soviets had been formed at the city level but also more locally in the districts and in individual factories. Despite their failures at the city level, the Bolsheviks predominated in the factory soviets, which Fitzpatrick notes were “closest to the grass roots” and “tended to be the most radical of all workers’ organizations.”<sup>78</sup> In the workers’ soviets, a concept of self-management was emerging, and the new sense of agency of the working class was deeply felt. Peasants, too, took power into their hands by expropriating landlords and seizing state land for themselves. Finally, there was upheaval in the military as well. Morale among the soldiers had been in steady decline, and a horrendous failure in the Galician Offensive with some 200,000 dead precipitated a crisis in the provisional government, the withdrawal of all Kadet party ministers, and the resignation of Prince Lvov, the head of state.

Massive demonstrations of perhaps half a million people rocked Petrograd in the July Days. The Provisional Government very nearly faced an insurrection led by

Bolshevik sailors who had acted spontaneously and without the knowledge of the Bolshevik Central Committee, who disavowed any role in the putsch. The Bolshevik leadership had neither planned nor encouraged the July Days, but they were held accountable for it by the state, and several were arrested. With orders out for his arrest and accusations that he was a German agent, Lenin was forced to flee the country. On the other hand, a coup from the right was attempted in August by General Kornilov, recently appointed commander-in-chief of the Russian Army. The coup failed as the weak organization of the troops and their sympathy toward the workers made it possible for the local union and factory committees to persuade the soldiers that they had been deceived by their officers. The public blamed the Provisional Government for this incident, and the Menshevik leadership's lack of adequate response in the Petrograd Soviet sullied their reputation as well. The country was in a deep crisis, and its leadership was roundly failing.

After Kornilov's attempted coup, there was little public support for the alliance of moderate socialist and liberals. Working class militancy was at an all-time high, and Bolsheviks were the best positioned to take advantage of the circumstances. In 1917, a truly massive influx into the Bolshevik ranks from spring to fall saw the membership grow faster than that of any other party: from just a few thousand in February to "a total of 350,000 members, including 60,000 in Petrograd and the surrounding province and 70,000 in Moscow and the adjacent Central Industrial Region."<sup>79</sup>

In late August and early September, the Bolsheviks won majorities in the Petrograd and then Moscow Soviets. Military-Revolutionary Committees had been established in the Soviets to prevent another attempt at counter-revolution from the right, and the existence of these organizations made it easy to organize the Bolshevik seizure of power in October. This was not a coup devised by a small sect of radical intellectuals but the organized decision of a mass movement. Nonetheless, when Lenin insisted on insurrection in October, overcoming substantial resistance among fellow Bolsheviks, the overthrow of the Provisional Government was planned quite intentionally to occur before the Congress of Soviets and before the Constituent Assembly. Despite winds in their favor, Bolsheviks did not wait for a democratic mandate from the Congress of Soviets, declaring rather than electing a Council of People's Commissars to replace the Provisional Government. Nor did they accept the results of the Constituent Assembly, in which the SRs won a majority of 40% in comparison to 25% for the Bolsheviks. There would be no competition from other parties.

More importantly for Bogdanov, the objective conditions were not suitable for anything more than "war communism." The overthrow of the Provisional Government and conclusion of the war was a necessity, he thought, but it was not a socialist revolution. The Bolsheviks had pursued a "maximalist" line and would not be able to deliver the socialist society they desired. Rather, they were basing the nascent Soviet society on a model of "state capitalism," which began from changes in consumption rather than production and thus was not an adequate basis for socialist transformation.

Moreover, in becoming a party of workers and soldiers, the Bolshevik party would be forced by the “law of leasts” (a tektological principle) to adopt the “logic of the barracks, all its methods, all of its specific culture and its ideals.”<sup>80</sup> Rather than a politics of labor and skill, this would be a politics of force.

As evidence, Bogdanov pointed to the state seizure of the banks, which had been accomplished by force and had “destroyed the networks of deposits and debt on which they were based and made them unworkable.”<sup>81</sup> In November, citing these reasons, Bogdanov refused Lunarcharsky’s offer of a post in Narkompros, the People’s Commissariat of Education. Yet despite differences in analysis, Bogdanov continued to recognize the “objective necessity”<sup>82</sup> of Bolshevik policies during the Civil War, and felt no hostility toward individuals swept into its tragic struggles, including Lenin, whom he continued to regard as a good “representative of the practical line in communism.”<sup>83</sup> Still, he judged that his most significant contributions to the revolution would come from his writing and his participation in the proletarian cultural movement.

### **Bogdanov’s Literary Revival**

With a socialist government in command, popular demand for Bogdanov’s writing in literature, sociology, and political economy was renewed. *Red Star* and *Engineer Menni* were re-released in 1918, and a new version of the *Short Course* went into preparation. Regarding the latter, Bogdanov explains that “so long a time had passed and so much had happened in life and in science that considerable revision was necessary.”<sup>84</sup> Specifically, Bogdanov was concerned with giving adequate treatment to

finance capital, which had become the dominant form in England, and which Bogdanov believed had precipitated the WWI. Moreover, the new developments in economic technique meant that the last decade had “probably exceeded the whole of the previous century in wealth of economic experience.”<sup>85</sup>

Thus, in cooperation with S. M. Dvolaitzky, an economist with whom Bogdanov worked alongside at the Socialist Academy of Social Sciences (SOAN), the *Short Course* was revised again to address the rise of finance capital. The new version was completed in 1919 and read by Lenin in the late spring of 1920. Although Lenin had regarded the early editions of the *Short Course* as the best teaching text available on the subject, he saw “serious deficiencies” in the new version.<sup>86</sup> Lenin was troubled by the treatment of finance and by the absence of the term “dictatorship of the proletariat” from the concluding section on socialist economies. This disagreement did not stop it from being translated into English shortly thereafter by J. Fineberg for publication by the Communist Party of Great Britain in 1923 and again in 1925.

Economic theories of finance capitalism were of great import to the early Soviet state. In England, the hegemonic power of the capitalist world economy, financialization had become the dominant mode of capital accumulation. In 1910, Rudolf Hilferding wrote *Finance Capital*, arguing that financialization was setting the stage for socialist society. This argument was echoed by Bukharin in a 1915 pamphlet and by Lenin in *Imperialism, The Highest Stage of Capitalism* in 1917. Finance capital, defined as the merger of industrial and bank capital, led to the creation of a financial oligarchy. For

Lenin and Bukharin among other socialist theorists, this meant that power over the production process was concentrated in the big banks, and socialist transition could be accomplished in large part by seizing these banks to democratically plan the organization of productive life. Bogdanov disagreed with this analysis, arguing that the influence of finance capital on production was through indirect economic pressures and that socialist control of the banks, though important, was not as powerful an organizational lever as Hilferding assumed.

For Bogdanov, the construction of socialist society would require a cultural revolution. He was a major influence in Proletkult, the proletarian culture movement which arose in Soviet Russia to meet this need. In essays such as “Proletarian Poetry,” “Religion, Art, and Marxism,” and “The Workers’ Artistic Inheritance,” Bogdanov set out his belief in the vital significance of cultural production and the need to both inherit the greatest achievements of the past and to interpret these achievements from a proletarian perspective. During this period, he was also at work on *Essays in Tektology*, completed in November of 1921 and published in 1922. The trilogy comprised a revision of the first two books and the addition of a third, which Bogdanov felt concluded the series to the best of his understanding. He believed that *Tektology* offered a proletarian perspective, a great contribution to the project of organizing experience from the labor point of view. It would be foundational, he thought, to the much-needed proletarian encyclopedia—an echo of the revolutionary French *Encyclopedie*, a dictionary of arts

and sciences produced by Diderot and D'Alembert in the mid-eighteenth century—and would provide a unified methodological basis, he hoped, for a Proletarian University.

### **Proletarian Culture Movement**

In the wake of the February Revolution, workers' organizations of all kinds blossomed in Russia, including cultural and educational organizations. In a bid to unify these groups, Anatoly Lunacharsky and members of the *Vpered* literary group organized a conference to be held in Petrograd in mid-October. Thus, the first conference of the Russian Proletarian Cultural-Educational Association (Proletkult) was held just a week before the October Revolution. Bogdanov had co-founded the *Vpered* group in 1909, and although the organization had split over diverging conceptions of cultural revolution, many members remained close both politically and personally. Lunacharsky and Bogdanov had become friends in 1900 when both men were exiled to Kaluga for their political work, and they became family in 1902, when Lunacharsky married Bogdanov's sister Anna. Together with their shared philosophical interests, both men had become Bolsheviks during the factional split of the RSDLP in 1903. Together they organized and taught at party schools for advanced workers in Capri and then Bologna in 1909 and 1910, where they collaborated with their students to write the "Platform" for the *Vpered* group. In 1917, they collaborated once more in the formation and promotion of Proletkult.

As president of the cultural-educational commission in the Petrograd Party committee, Lunacharsky was a natural choice to head *Narkompros*, the People's

Commissariat for Education, when the October Revolution ushered in a new Soviet government. Accepting his appointment, Lunacharsky invited Bogdanov to join him in Narkompros, where together they could elevate the proletarian cultural revolution. Bogdanov declined, arguing that the Bolsheviks had become a worker-soldier party, and in consequence they had taken on too much of the mentality of the barracks, to which he was ill-suited.

Thus, Bogdanov preferred to retain his autonomy from the central government. Fortunately, Lunacharsky shared Bogdanov's view that Proletkult ought to be an autonomous organization. In a statement made on October 29 after just three days in office, Lunacharsky declared that "cultural-educational organizations must achieve full autonomy, both in relation to the central government and to the municipal centres."<sup>87</sup> Lunacharsky also ensured that Proletkult would receive substantial state subsidies to promote cultural-educational activities, hold conferences, teach classes, and publish journals. This arrangement was favorable for Bogdanov, who had become a central figure in the Moscow Proletkult and who now worked furiously toward his vision of cultural revolution.

At the first Congress of the Proletkult held in February of 1918, Bogdanov addressed the assembly with a speech on "Science and the Working Class." The proletarian culture movement was an opportunity to construct a new worldview, and this momentous task would require both a "methodical consideration of the legacy of the old world" and "a large and deep autonomous creation."<sup>88</sup> The entire collective experience



of humanity, from religion and art to philosophy and science, must be reviewed and reorganized from the proletarian perspective. To this end, proletarian culture required a Workers' University; among its central tasks was to produce a Workers' Encyclopedia that would do for the proletariat what the *Encyclopédie* of Diderot and d'Alembert had done for the bourgeoisie.

The objective of proletarian culture, according to Bogdanov, was to overcome the fragmentation of knowledge into specialized disciplines and to unite them in a universal organizational science. By the time of his speech at the First Congress, Bogdanov had already developed the outlines of his organizational science and spent the better part of a decade hoping to attract collaborators. In Proletkult, which quickly swelled to some half a million members by 1920, he believed that his ideas would finally find an organizational home in hundreds of little laboratories of the future. The proletarian culture movement produced a lively debate among socialist leaders and theoreticians. Lenin, Bukharin, Trotsky, and Stalin all weighed in on the subject, each developing a distinct analysis and political line on the theory and practice of cultural revolution.

### **The Dangerous Rival**

The fourth and final time Bogdanov was arrested, he was among the most well-known non-party socialist intellectuals in the Soviet Union. Bogdanov was the general editor for the standard Russian translation of Marx's three volumes of *Capital*. The *Short Course*, already a staple of revolutionary education prior to the revolution, was

becoming an international phenomenon. His novels were reprinted in several new editions after the revolution, and *Red Star* was commissioned for the theater. He had been a leader in the proletarian culture movement, a cultural-educational institution that reached nearly half a million members. But he was a non-party intellectual; he remained on the outside even though Anatoly Lunacharsky, his brother-in-law and the Commissar of the Enlightenment, had personally requested that he rejoin the party to serve in the education department, a role he was well suited for. Despite all his qualifications and his history as a co-founder of the Bolshevik faction, Bogdanov did not want to be a member of the Bolshevik party, which to some made him suspect. In September of 1923, the secret police searched Bogdanov's apartment, arrested him, and detained him for questioning. After a week in prison, Bogdanov was told he was suspected of leading an opposition group called Workers' Truth, who had declared their belief in Bogdanov's collectivist ideal of proletarian power against the hardening one-party dictatorship. Fortunately, Bogdanov was familiar with the head of the secret police, Felix Dzerzhinskii, from his days as a young Bolshevik organizer, and he was able to clear up the misunderstanding in a personal meeting. Bogdanov had no interest in leading an opposition party. From his point of view, he had taken leave of politics entirely in 1913 to concentrate his energies on scientific work, and he could not be held responsible for his readers, who in any case had misunderstood him if they believed that he opposed the leadership of the Bolshevik state.

## The Struggle for Viability

In 1921, Bogdanov was invited by Krasin to join a trade delegation in Britain as an economic expert. In London, Bogdanov discovered a new book on blood transfusion written by Geoffrey Keynes, younger brother of the renowned British economist John Maynard Keynes. For several years Bogdanov had expressed a casual interest in blood transfusion—first in his science fiction novels, then as a matter of speculative biology in the journals of proletarian culture. Like Bogdanov, Geoffrey Keynes had served in WWI as a military surgeon, and his book *Blood Transfusion* recounted his experiences using the procedure in wartime. Bogdanov not only purchased the book but also acquired “apparatuses for blood transfusions and sera for blood typing from British suppliers.”<sup>89</sup>

Upon return to Russia, this equipment and Keynes’ book became his theoretical lifeblood. He assembled a small study group including Natalia Bogdanov, his wife, Samien Maloletkov, a fellow military doctor, Ivan Sobolev, Bogdanov’s childhood friend who went on to become a physician in Tula, and Dmitrii Gudim-Levkovich, who was Sobolev’s colleague from Moscow University clinics.<sup>90</sup> For the first few years, the group met once a month or so to discuss research and learn basic techniques. The group met privately and did not make any requests for funding from the state. Soon, Bogdanov’s interest in blood transfusion was elevated from the casual research of a private study group to a major experimental enterprise. Krementsov speculates that Bogdanov’s declining health or the prolonged illness and death of Lenin in 1924 may have motivated him to move from theorizing about blood transfusion to experimenting.

Indeed, Bogdanov's first attempt at blood transfusion was performed on February 11, "the very day the Communist Academy held a special meeting commemorating Lenin's death."<sup>91</sup> Whatever his personal motivation, the string of events that transformed the private endeavor into a state funded institution appears to have begun with Krasin, not only due to Krasin's inviting Bogdanov to London but more importantly, his anemia. Like many Soviet leaders, Krasin had become ill, and his doctors had offered little advice of use, recommending he take time away from work to rest and recover in the countryside. Before doing so, Krasin visited Bogdanov to see whether his experiments with transfusion could be of any help. Bogdanov resisted at first, but upon consulting Keynes' text and finding some evidence that blood transfusions may help with anemia, he procured a donor and Krasin was treated. Apparently Krasin felt that the experiment was a success, and word got back to Bolshevik leadership.

In December of 1925, Bogdanov was called to a meeting with Joseph Stalin, now general secretary of the Bolshevik Party. Stalin was concerned not only by the death of Lenin but the high rate at which other Soviet leaders were experiencing "nervous disorders" of various kinds, which accounted for nearly half of hospital visits by high-ranking officials.<sup>92</sup> In addition to these nervous disorders, a general lack of organization in the medical profession and backwardness of medical science in Russia contributed to Stalin's concern. Not long before Stalin's meeting with Bogdanov, Mikhail Frunze, the commander-in-chief of the Red Army, had died during an apparently routine operation from complications with general anesthesia, and there was a stir among the leadership. A

commission was established with the aim of overhauling the medical system. Among the programs instituted by the commission was the Institute of Blood Transfusion, and Bogdanov was appointed its director.

During the first year as director of the institute, Bogdanov wrote and published *The Struggle for Viability: Collectivism Through Blood Exchange*. Here, Bogdanov attempted to give a more thorough scientific basis for the system of blood exchanges he had imagined in his 1908 science fiction novel, *Red Star*. Consistent with Bogdanov's broader struggle for a proletarian science, *Struggle for Viability* was written from an organizational perspective, adopting the terminology that Bogdanov had developed in the *Essays on Tektology*.

For Bogdanov, the degeneration of the human organism had to be understood, in its most general and universal form, as disorganization. All ailments expressed various forms of disorganization, and he imagined that by learning to treat them systematically and holistically, even death could be defeated, or at least life could be significantly extended. Bogdanov's ideas about medicine and biology may sound just as utopian as his science fiction, but it is worth noting that he was not alone in such speculations. Russian, German, and French biologists were all interested in the science of senescence or gerontology, and various "cures" for aging were both studied scientifically and popularized widely among the public. There was even a French scientist, Helan Jaworski, who had independently come to believe, like Bogdanov, that blood transfusion could help to combat the process of aging. However, from the limited amount of

Jaworski's written work available in Russia, Bogdanov was not impressed. Nor was he impressed with contemporary studies of blood transfusion in Russia, critiquing them unreservedly.

Contemporary Russian medical researchers who encountered *Struggles for Viability* were just as unimpressed by Bogdanov as he with them, but this did not stop the project from moving forward institutionally or from its findings being widely disseminated. Reviews of the text were generally short and emphasized two features: the lack of experimental data provided to support his claims, and the polemical tone he took when addressing fellow scientists. One scientist who had been subjected to the polemic returned fire, dismissing Bogdanov's views as "medieval mysticism mixed with the dogma of mechanistic materialism."<sup>93</sup> As Krementsov observes, Bogdanov failed to conform to the norms of tone, citation style, and data that had emerged as professional writing standards among Russian researchers. Despite his previous work explaining the importance of statistical analysis in the sciences, Bogdanov's presentation of the data in *Struggles for Viability* was narrative in form. Nor did he cultivate an alternative proletarian audience that was both interested in and capable of entering the debate. However, the special circumstances in which the Institute of Blood Transfusion was created meant that Bogdanov's failure to appeal to other medical researchers was not an impediment to the project. He reported not to a commission of medical experts but to a financial commission charged with administering special projects such as this one.

With the approval of the commission, Bogdanov received a generous budget to expand the research facility and hire more staff.

Bogdanov knew that he lacked formal training in experimental medical research. As a junior physician, he understood the practical importance of medicine for social struggles, but as a researcher he did not produce texts of practical relevance to the state of medical science in Russia. Worse, he showed a lack of familiarity with the protocols of experimental design used by his contemporaries, neglecting to begin with experiments on animals or the use of control groups. Scientific methods and experimental design should always be subject to critique, and neither experimentation on animals nor the use of control groups in medical science is beyond question.<sup>94</sup> Given the close attention to method that Bogdanov had been trained in, it is even reasonable to speculate that his philosophy would entail such criticisms. However, there is little textual evidence to suggest that he systematically accounted for such criticisms with respect to his research practice at the Institute, which he certainly had time to do if he had desired. While administration was a significant responsibility, he also continued to write on social and economic issues during this period, and he was developing a third novel synthesizing his previous two. Despite access to vast resources, he was disconnected from his most able Russian peers, and the result was personally disastrous.

### **Death**

The only adequate resolution to the problem of immortality is suicide. This is the somber conclusion of Bogdanov's 1912 short story "Immortality Day," set in the distant

future, one thousand years after the discovery of a serum for “physiological immunity.” Fride, the scientist who discovered this serum, has lived numberless lives. He began as a chemist and then became a sculptor, a painter, a poet. After fifty or a hundred years in each occupation he developed mastery, then boredom, and so moved on to another. His will to document these many lives survived the first 850 years, until that too lost its meaning for him. The rhythmic cycles of life became effortlessly predictable—the eternal recurrence of the same—even the cycles of remembering and forgetting this ennui of eternal life, like clockwork. The only way out was to rejoin the cycle of life and death. His final act: self-immolation.

On March 24, 1927, Bogdanov participated in his twelfth and last blood exchange with a student from Moscow University. Although the student had initially been turned away as an unsuitable candidate, Bogdanov asked him to return and volunteered to work with him personally. According to Krementsov, “the student suffered from an inactive form of tuberculosis, and Bogdanov had always believed himself to be immune to the disease.”<sup>95</sup> Bogdanov hoped to show that his immunity could be transferred to the student to effectively treat his tuberculosis. In the event, however, both Bogdanov and the student fell ill. Despite sharing the same blood group, there were “incompatibilities undetectable using the cross-matching techniques of the time,” and while the tuberculosis had no effect, these incompatibilities had severe consequences.<sup>96</sup> The student underwent days of flu-like symptoms of vomiting, diarrhea, and fever. Bogdanov’s reaction was much worse. For fifteen days he kept a journal



describing his experience, which began with chills, progressed to jaundice, and then to beginnings of renal failure. As White notes, at about a week into his illness, Bogdanov began to feel better and believed he was approaching a turning point and would soon make a full recovery.<sup>97</sup> He was correct about the turning point, but he misjudged its direction. In the following days, his kidney failure worsened, and finally his heart gave out. On April 7, 1927, at just fifty-four years old, Alexander Bogdanov was dead.

Some have speculated that Bogdanov took his own life, that his experimental error was not an error at all. The tragic lesson of “Immortality Day” is not the only clue that would support this case. In *Red Star*, Martians have easy access to facilities for committing suicide, and in *Engineer Menni*, suicide is presented as a prescription for the curse of becoming a vampir—that is, for outliving one’s cultural world and becoming a burden on the emerging future. In Bogdanov’s 1924 poem “A Martian Stranded on Earth,” which he intended to develop into a third novel in the series, the protagonist considers suicide after a crash landing on Earth leaves him cold and alone. This persistent theme in Bogdanov’s literary work, coupled with the coercive side of proletarian science that came to the fore in the Shakhty conspiracy of 1928, led Loren Graham to speculate that Bogdanov undertook his final experiment knowing it was “likely to be fatal.”<sup>98</sup>

Others disagree. Kremmentsov says that it was sloppy science that got Bogdanov killed. He spent too much time reading popular science magazines and too little in the research journals. He did not use an experimental control group, which was already

standard practice for his peers. And he did not begin his trials on laboratory animals, which would certainly have spared his life. But according to Doug Huestis, it was neither suicide nor bad experimental practice. It was not suicide because Bogdanov was earnestly convinced he could cure his patient's tuberculosis. Moreover, Bogdanov did not die from the tuberculosis, and his patient made a full recovery. Nor was his death the result of shoddy science because Bogdanov died from an incompatibility of blood plasma that he had no way to detect. Even if Bogdanov had been completely up to date on the cutting edge of hematology research, he could not have foreseen the incompatibility between the antibodies in his patient's blood and his own.

If Bogdanov chose the path of "Immortality Day," there would be no guessing. Fridé's suicide, "self-immolation in its ancient barbarian form," was an aesthetic choice: "To burn at the stake! At the very least, it will be beautiful."<sup>99</sup> For Fridé, death by fire had a poetic quality, rhyming with the fire stolen by "Divine Prometheus," but Bogdanov had not yet caught the flame. Bogdanov's death shows no such obvious signs of the poetic. Proletarian science had only taken its first breath, and Bogdanov knew there was a battle ahead. In "A Martian Stranded on Earth," he steeled himself with the knowledge that the battle for socialism "was violent and raw and drenched through in gore/ and by vileness and greed it was stained/ but such are the roads to ideals, and what's more/ they are paved with illusions and pain."<sup>100</sup> He could not have been so shocked by the 1928 Shakhty trials, which charged fifty-three engineers with wrecking and sentenced eleven to death, that he would run from the fight for socialist

transformation. As White observes, even if Bogdanov was often frustrated by “how he and his work were treated by the Soviet regime, there is nothing to suggest that he suffered any serious psychological damage by it. He was a person of strong will, and never doubted for a moment that he was in the right.”<sup>101</sup>

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<sup>1</sup> Tolstoy, *Anna Karenina*, 24

<sup>2</sup> Tolstoy, 24

<sup>3</sup> Rodney, *Russian Revolution*, 154.

<sup>4</sup> Figs, *People's Tragedy*, 92.

<sup>5</sup> Figs, 29.

<sup>6</sup> Figs, 71.

<sup>7</sup> Figs, 71.

<sup>8</sup> Trotsky, *History*, 32.

<sup>9</sup> Figs, *People's Tragedy*, 125.

<sup>10</sup> White, *Red Hamlet*, 408.

<sup>11</sup> Trotsky, *History*, 35

<sup>12</sup> Friedrich Engels, “A Polish Proclamation,” originally published in *Volksstaat*, 11 June 1874. From Karl Marx and Frederick Engels, *The Russian Menace to Europe*, edited by Paul Blackstock and Bert Hoselitz (London: George Allen and Unwin, 1953), pp 109–15. Scanned and prepared for the Marxist Internet Archive by Paul Flewers. <https://www.marxists.org/archive/marx/works/1874/06/11.htm>

<sup>13</sup> Bogdanov, *Short Course*, 36

<sup>14</sup> Bogdanov, *Toward*, 90.

<sup>15</sup> Bogdanov, *Empiriomonism*, xii.

<sup>16</sup> Bogdanov, *Toward*, 363.

<sup>17</sup> Bogdanov, 366.

<sup>18</sup> Bogdanov, *Empiriomonism*, 227.

<sup>19</sup> Bogdanov, 232.

<sup>20</sup> Bogdanov, 227.

<sup>21</sup> White, *Red Hamlet*, 5.

<sup>22</sup> White, 6

<sup>23</sup> White, 7.

<sup>24</sup> White, 11.

<sup>25</sup> White, 17.

<sup>26</sup> White, 17.

<sup>27</sup> Bogdanov, *Short Course*, vii.

<sup>28</sup> Yakovleva, “On the Role,” 520.

<sup>29</sup> White, *Red Hamlet*, 20.

<sup>30</sup> Yakovleva, “On the Role,” 520.

<sup>31</sup> Krementsov, *Martian*, 34.

<sup>32</sup> Krementsov, 36–37.

<sup>33</sup> White, *Red Hamlet*, 15.

<sup>34</sup> White, 15.

<sup>35</sup> White, 56.

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- <sup>36</sup> White, 57.  
<sup>37</sup> White, 84.  
<sup>38</sup> White, 88.  
<sup>39</sup> White, 84–85.  
<sup>40</sup> Kowner, “Nicholas I,” 213.  
<sup>41</sup> Luxemburg, “The Mass Strike,” 139.  
<sup>42</sup> Figes, *Peoples’ Tragedy*, 163.  
<sup>43</sup> Figes, 160.  
<sup>44</sup> White, *Red Hamlet*, 115.  
<sup>45</sup> Figes, *Peoples’ Tragedy*, 115.  
<sup>46</sup> Figes, 148.  
<sup>47</sup> Trotsky, *History*, 57.  
<sup>48</sup> White, *Red Hamlet*, 120.  
<sup>49</sup> White, 121.  
<sup>50</sup> White, 122–123.  
<sup>51</sup> White, 133.  
<sup>52</sup> White, 141.  
<sup>53</sup> Trotsky, *History*, 56.  
<sup>54</sup> Bogdanov, *Empiriomonism*, 268.  
<sup>55</sup> Bogdanov, 267.  
<sup>56</sup> Figes, *People’s Tragedy*, 130.  
<sup>57</sup> White, *Red Hamlet*, 205.  
<sup>58</sup> White, 238.  
<sup>59</sup> White, 174.  
<sup>60</sup> White, 179.  
<sup>61</sup> White, 192–193.  
<sup>62</sup> White, 221.  
<sup>63</sup> White, 248.  
<sup>64</sup> White, 249.  
<sup>65</sup> White, 241.  
<sup>66</sup> Rowley, “Editor’s Introduction,” xiii.  
<sup>67</sup> White, *Red Hamlet*, 342.  
<sup>68</sup> Fitzpatrick, *The Russian Revolution*, 15.  
<sup>69</sup> A condition noted by Leon Trotsky in his *History of the Russian Revolution* and analyzed in detail more recently in Boris Kagarlitsky, *Empire of the Periphery*. Trans. Renfrey Clark. Ann Arbor, MI: Pluto Press, 2008.  
<sup>70</sup> Figes, *People’s Tragedy*, 261.  
<sup>71</sup> Fitzpatrick, *The Russian Revolution*, 37.  
<sup>72</sup> Fitzpatrick, 39.  
<sup>73</sup> Rodney, *Russian Revolution*, 30.  
<sup>74</sup> White, *Red Hamlet*, 355.  
<sup>75</sup> Fitzpatrick, *Russian Revolution*, 47.  
<sup>76</sup> White, *Red Hamlet*, 362.  
<sup>77</sup> Fitzpatrick, *Russian Revolution*, 49.  
<sup>78</sup> Fitzpatrick, 54.  
<sup>79</sup> Fitzpatrick, 52.  
<sup>80</sup> White, *Red Hamlet*, 373.  
<sup>81</sup> White, 376.  
<sup>82</sup> White, 418.  
<sup>83</sup> White, 391.

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- <sup>84</sup> Bogdanov, *Short Course*, vii.  
<sup>85</sup> Bogdanov, vii.  
<sup>86</sup> Fitzpatrick, *Commissariat*, 175.  
<sup>87</sup> Fitzpatrick, *Commissariat*, 89.  
<sup>88</sup> Bogdanov, “Science and the Working Class (Bogdanov),” trans. Fabian Tompsett, 3  
<sup>89</sup> Krementsov, *Martian*, 57.  
<sup>90</sup> Krementsov, 57.  
<sup>91</sup> Krementsov, 59.  
<sup>92</sup> Krementsov, 61.  
<sup>93</sup> Krementsov, 103  
<sup>94</sup> See for example Donna Haraway, *When Species Meet*; and Isabelle Stengers, *The Invention of Modern Science*, 24–25.  
<sup>95</sup> Krementsov, *Martian*, 99.  
<sup>96</sup> White, *Red Hamlet*, 452.  
<sup>97</sup> White, 451.  
<sup>98</sup> Graham, “Bogdanov’s Inner Message” in Bogdanov, *Red Star*, 252.  
<sup>99</sup> Bogdanov, “Immortality Day,” 225  
<sup>100</sup> Bogdanov, *Red Star*, 238.  
<sup>101</sup> White, *Red Hamlet*, 453.



### CHAPTER III

#### ORGANIZING COLLABORATION AND CULTURE

For Bogdanov, the history of science and technology is nothing less than the history of labor. Whether religion, philosophy, or science, Bogdanov interprets the history of knowledge in view of its relation to labor practices. In his view, the history of mathematics, physics, chemistry, or biology is best understood by looking for their origins in practical and concrete forms of knowledge that were essential to the survival and reproduction of society. Each of the contemporary fields of science, which Bogdanov calls “abstract sciences,” are generalizations from the practical insights of millions of workers.

Bogdanov’s commitment to a Marxist historicism combined with his attraction to positivism presents us with an unusual view of the history of science. On the one hand, for Bogdanov “science” refers to the highest form of culture known to human history. Like the founder of positivism, Auguste Comte, Bogdanov presents intellectual history as a three-stage development, from religion through philosophy to science. In this way, Bogdanov conceptualized intellectual history as a linear historical trajectory toward progress and enlightenment. Following Marx, he adds only that these forms of culture are determined in their origins and limits by the technological and economic systems—what Marx called the mode of production—that characterized the epoch of their cultural dominance. Thus, Bogdanov interprets progress in culture as the correlate of progress in

society. Thus, he believed that the emergence of positive science, the most advanced form of knowledge, was the natural correlate of the emergence of complex advanced societies in the capitalist epoch.

On the other hand, “science” refers to the highest form of culture that existed in *any period of human history*. Bogdanov thus freely relativizes the history and meaning of the term “science.” More precisely, for Bogdanov “science” is the most systematically organized expression of all the knowledge possessed by humanity as a whole in a given historical period. In a sense, then, we can say that religion was the science of its day. Specifically for Bogdanov, religion was the form of organizing knowledge invented by patriarchal-authoritarian societies and carried to its highest form by feudal societies. He points to the Torah, for example, as the best encyclopedia of practical knowledge that was then available. Likewise, philosophy was the science that developed in exchange societies in all their variegated forms, from the early mixtures of slave societies with mercantilism to the most recent forms of finance capitalism. For Bogdanov, the best examples of these philosophers are the sages who traveled the world and synthesized the knowledge of diverse peoples to provide more well-rounded “wisdom” that aspired to universal knowledge and contributed to diverse fields of experience.

Bogdanov took the view that everything humans do comes back, in the end, to survival and reproduction. In this way, he is essentially concerned with political economy, which might be aptly defined as the science of organizing survival and reproduction in human groups. Like biological variation in general, cultural forms will



tend to proliferate in diverse directions, but only those promoting survival and reproduction will stand the test of time. In societies that are profoundly successful in amassing a surplus of resources, cultural forms will not be put to the test of survival except in the case of crisis.

In societies divided by class, cultural forms will be selected by the conditions of survival of the ruling class. This is true even in those cases where the survival and reproduction of the ruling class will cause the downfall of society as a whole—unless, of course, there is a cultural revolution. In that case the society will survive, but the ruling class will be replaced by a new class. Or, as promised by the Marxists, the ruling class may be eliminated categorically such that the new society is truly self-governing, and no ruling class rises above the rest of society. In the Marxist utopia, society is a fully integrated collective whole. In either case, the struggle for survival and reproduction continues, more or less transformed by the new conditions of cooperation, communication, and culture.

This chapter focuses on the relationship between Bogdanov's organizational point of view and his revolutionary cultural politics, beginning with his labor theory of speech. The labor theory of speech was an essential component of Bogdanov's thought as is clear from his tendency to repeat the theory in a wide variety of theoretical contexts: from his early works of physiological psychology, through his organizational science, and into his reflections on proletarian art. In fact, Bogdanov began his magnum opus, the *Essays in Tektology*, with an extended discussion of the labor theory of speech,

and he continues to offer refinements and elaborations of this theory throughout the *Essays*. After explaining Bogdanov's basic orientation to communication as an "instrument of organization," I proceed to a discussion of Bogdanov's general theory of organization. Here I review the basic concepts of Bogdanov's organizational science, drawing connections to communication and culture where appropriate and giving particular attention to Bogdanov's "stratigraphic" model of society. Next, I look at the concepts of "class" and "social group," which Bogdanov uses to describe the relationship between forms of labor experience and the organization of experience in thought. Finally, I present Bogdanov's organizational point of view on three historical worldviews—authoritarianism, anarchy, and socialism—and conclude with reflections on the role of a revolutionary intellectual in promoting the transition to a new culture.

### **The Labor Theory of Speech**

Bogdanov's approach to human communication was rooted in evolutionary naturalism and Marxism. He argued that the relationships between symbol and world are not the result of an arbitrary convention, but rather that speech communication has a physiological and functional-pragmatic basis in pre-symbolic human cooperation. He did recognize that one sound is "no better or worse" than any other sound for representing a given concept.<sup>1</sup> However, following the German philologists Max Muller and Ludwig Noire, Bogdanov traced the origin of language to "labor cries," which he describes as "involuntary shouts accompanying collective action."<sup>2</sup> In this sense, although one sound is no better than any other in the abstract, the concrete historical selection of one sound

rather than another is the product of biological and cultural evolution rather than creative conventional agreement.

Research on the origins of speech was not a common topic for linguists in Bogdanov's day as the available evidence was scant; it was even banned by the Linguistic Society of Paris and similarly scorned by the Philological Society of Great Britain in the late nineteenth century. However, among those who studied the topic, many believed that Ludwig Noire had given the most compelling account. Indeed, Jacob D'Alonzo finds that "Noire's theory deeply influenced the debate on language origins until the 1950s at least."<sup>3</sup> Among the Russian Marxists, Noire's theory of language origins was not a matter of dispute as it was considered equally plausible by both Bogdanov and his philosophical opponent, the "father of Russian Marxism," Georgi Plekhanov.<sup>4</sup> Both Bogdanov and Plekhanov were attracted to Noire's theory because, though Noire was no Marxist, he had given a naturalistic description of linguistic origins that gives pride of place to collective labor. For Noire, collective labor was the distant historical origin, the primal scene, of the linguistic act. For Bogdanov, it was clear that the entire history of human communication must be interpreted from this point of view.

Bogdanov argued that the naturalistic description of language proffered by Noire could be interpreted through the lens of his own tektological theory of "skeletal forms," or what he more generally referred to as "degressions."<sup>ii</sup> Degressive forms are the

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<sup>ii</sup> "Degression," not to be confused with "digression," comes from the Latin for "descent down" rather than to "step away."

elements of a system that provide stability and protection to the more flexible and dynamic elements. A common origin of “degressive forms” in many species of organic life is excretion, the various kinds of waste products that are discharged by an organic system after the necessary resources have been consumed. Bogdanov believed that human physiology explains the natural connection between bodily movements and speech sounds because “words also originated from peculiar ‘wastes’ of human evolution.”<sup>5</sup> Due to the peculiarities of human anatomy, he explains, “‘superfluous’ contractions occur with any moderately significant effort.”<sup>6</sup> Bogdanov gives the examples of children who stick out their tongues when learning to write and the funny faces they make when trying to lift heavy weights as typical examples of these superfluous behaviors. Because these movements are superfluous, they are often eliminated over time to concentrate energy on only those movements strictly necessary for survival. It is common, Bogdanov explained, for such “skeletal products” of “nervous excitation” to be “rejected,” just as “toxic” discharges from a protoplasm will be rejected. However, there are also cases in which more “neutral” waste products benefit an organism because of their durability and thus form the basis of a shell, like the skeleton of a rhizopod. Following this analogy, Bogdanov argued that the verbal waste products of reflexive nervous excitation in the human body may, if they are useful, begin to accumulate as protective and stabilizing elements rather than being discharged.<sup>7</sup>

In the case of human “social evolution,” the reflexive pronunciation of a sound is useful “for the retention of experience of labour processes, i.e. the experience of motor

efforts, which is the basis of any experience in general.”<sup>8</sup> Bogdanov argues that the utility of a speech sound stems from its degressive quality: that is, from the relative stability of the word as compared to the network of mental images and associations that constitute the semantic meaning of a concept.<sup>9</sup> By analogy to other skeletal forms, Bogdanov conceptualized the word as the skeleton of an idea. Thus, according to Bogdanov’s theory of language, “social evolution” selects for the retention of verbal symbols as skeletal products because they allow for the preservation and transmission of prior experiences and thus facilitate the process of collective action.<sup>10</sup>

The same logic that applies to words also applies to concepts in thought. Bogdanov argued, again following Noire, that thought is internal and unvoiced speech. Noire sometimes called his theory of linguistic origins “the logos theory” precisely because he assumed a single order of the word and the idea, and the ancient Greek term *logos* does not make a distinction between these concepts. For Noire, there is no thought without words, which are more appropriately referred to as word-ideas or word-concepts.<sup>11</sup> Bogdanov takes a similar position, arguing that there can be no “cognition proper” without the use of words.<sup>12</sup>

Bogdanov finds evidence for his theory of symbolic skeletons down to the present day in such interjections as “Heave-ho,” indicating the collective effort to lift a heavy object, but also in words that no longer function as interjections. For example, Bogdanov proposes that the root word “ku” or “sku”—the origin of the Russian, Latin, and German words “meaning ‘to dig’ and various words similar to it”—likely arose as

“a sound escaping from the worker as a result of pressure of the chest against some primitive instrument which was used for digging.”<sup>13</sup> From this original scene, Bogdanov argues that the word is attached by association first to the *actions* and then to *things*. Initially, the word is associated with the whole diversity of individual performances of the action, weakly as the desire to imitate the action, and later to “the analogous work not of man, but of a mole or a shrew.”<sup>14</sup> Secondly, the word is associated with *things*, such as the tool for digging and the products of digging. Bogdanov argues that the same logic applies to every root word and, by extension, to the full vocabulary of all human languages. The connection of the word to non-human actions and objects extends even beyond creatures to similar events: “If, for example, the sound ‘akh’ corresponded to the act of striking a blow, then it naturally would also be uttered when a person observed...a rock falling from a cliff.”<sup>15</sup>

This movement from action to sound to meaning, following Max Muller, is what Bogdanov referred to as the “basic metaphor.” Bogdanov was of two minds as to its value. On the one hand, he argues that the poetry of the basic metaphor, its tendency to anthropomorphize natural objects, is a “fetish” of thought that will be eliminated in more scientifically precise language.<sup>16</sup> On the other hand, Bogdanov recognized that this ambiguity was very useful and even necessary to human progress because it was only through the basic metaphor that “nature became accessible to ‘description’ and in general to ‘cognition.’”<sup>17</sup> Moreover, he considered this metaphorical leap from human actions to natural actions to be a precursor of the scientifically precise analogies

discovered in tektology. In retrospect, the vagueness of metaphorical thought was a kind of “monism of ‘popular tektology.’”<sup>18</sup> That is to say, by referring to the most disparate kinds of things with the same word, the folk wisdom of the basic metaphor was a kind of proto-tektology, a monistic point of view, though it was a monism based on failure to distinguish rather than deep structural analysis.

Bogdanov’s tektological system is thus grounded in a particular understanding of the nature of communication. In sum, the origin of language is found in labor, and the purpose of language, as it was in the original scene, is to organize labor by allowing for the communication and retention of technical rules from person to person and from one generation to the next. Communication is social being in motion. And as a corollary, to the extent that miscommunication exists in a society, that is because of the differences in our living labor and living experience that shape the intimate embodiment of meaning.

### **Organization and Disorganization**

The role of an organizer is to increase the level of organization in the system with which they are working. In the past, systems of labor and systems of thought developed more or less spontaneously; however, by grasping the instruments of organizational science, new systems could be consciously created to facilitate the organization of everyone and everything. As we know, the ideological “instruments of organization” are words, ideas, and norms, but we will need another set of concepts to describe organization in general.

The first of these concepts are “elements” and “complexes.” For Bogdanov, the terms element and complex correspond to the more usual terms parts and wholes or parts and systems, and all these terms can be used interchangeably. Regarding elements, Bogdanov explains that they are any and every kind of “activity” or “resistance.” In fact, activity and resistance amount to the same thing taken from different points of view. The elements are “those parts into which, in conformity with a problem under investigation, it was necessary to decompose its object.”<sup>19</sup> What’s more, if it becomes necessary in an investigation to analyze further, each of the elements can be treated as an independent complex. In short, they are recursive. For Bogdanov, the elements are “completely relative and conditional.”<sup>20</sup>

When elements are combined into a complex, that complex can be described as either an organized complex or a disorganized complex. If the whole is greater than the sum of its parts, it is organized. If the whole is less than the sum of its parts, it is disorganized. And if the parts and whole are equal, it is a neutral complex. For Bogdanov, it is important to emphasize that “the essence of these concepts reduces to *a combination of activities which are taken from its practical aspect.*”<sup>21</sup> For example, consider a system consisting of two workers who are tasked with clearing a field of large boulders in preparation for planting season. If the workers distract one another from the task and they therefore complete it more slowly, then this is a disorganized complex. According to Bogdanov, it is never possible to “combine efforts without a loss,” but these losses can be mitigated, and moreover, the results of collaboration may far



outweigh the losses. For example, if each worker can lift a fifty-pound stone on their own, in combination they may be able to lift ninety pounds. Thus, a stone weighing eighty pounds can easily be moved by two workers, whereas it would have been impossible for either worker individually. As Bogdanov explains, the “practical sum” of the workers’ activity is greater than the resistance of the boulder because the resistances do not add up. In this regard, Bogdanov considers a successful combination of elements to be “*practically greater* than the simple sum of its parts.”<sup>22</sup>

### *Formulating Mechanism*

The basic concepts that Bogdanov uses to describe the creation of any system are “conjunction, ingression, linkage, disingression, boundary, and crisis C and D.”<sup>23</sup> Conjunction is the name he gives to the “joining” of any two elements. Bogdanov argues that the acts of joining and separating (or as Kenneth Burke would say, identification and division) are fundamental to all thought and practice, but joining is primary while separating is derivative.<sup>24</sup> For example, Bogdanov suggests that in thought, there can be no distinction between two images or concepts “without a preliminary *comparison*; that is, without the joining of separated complexes in some common field, the field of ‘consciousness; or ‘experience.’”<sup>25</sup> Thus, conjunction is the primary moment in the development of any system. The results of conjunction will either be 1) a perfect harmony, joining the two complexes without any losses, 2) a complete contradiction and disharmony, where each complex is a resistance that fully “paralyzes” the activities of

the other, or 3) a combination in which the activities of the complexes are partly added, increasing the practical sum of activities, and partly subtracted.<sup>26</sup>

The next two concepts, ingression and linkage, are interdependent. Linkage is the connection between two complexes which share common elements: that is, the term linkage “denotes the ‘entry’ of elements of one complex into another, and vice versa.”<sup>27</sup> An “ingressive system” is formed where two or more complexes are coupled together by a linkage. For example, in labor practice a rope is created by the weaving of fibers; in thought, the idea of water is generalized from the experiences of “water in a river, water in the stream, water in one or another vessel, etc.”<sup>28</sup> In some cases it may be necessary to use an “introductory” complex, such as glue to connect objects that are not flexible enough to be woven together; in thought, by inserting a connecting idea such as a “common ancestor” between humans and apes. Bogdanov argues that with introductory links, a connection can be established in thought between every complex in the universe. Likewise, it is possible to establish a connection between two workers on opposite sides of the globe with “a sufficient number of telegraphic stations and lines,” and it is possible to create “mutual understanding” among the most diverse people by introducing a “knowledgeable and intelligent translator.”<sup>29</sup>

Dissingression is interdependent with the concept of boundary. Just as it sounds, disingression is the opposite of ingression; it is a separation that divides one system into two or many systems. A separation occurs at the point where there is a complete destruction of the linkages holding a complex together, and thus the “activities of a

complex are fully neutralized.” At precisely the point where the linkage has been neutralized, “a tektological boundary passes through it.”<sup>30</sup> Here, Bogdanov gives an example from wartime: the front line between two fighting armies is the place where “the antagonistic efforts of the two armies are held in mutual balance.”<sup>31</sup> In other words, the front line is a boundary that appears wherever the activities and resistances of the opposing forces cancel each other out, establishing an equilibrium between the opposing systems.

Finally, there is the concept of crisis. Crisis in general is defined as “a disturbance of equilibrium, and at the same time a transition to some new equilibrium.”<sup>32</sup> This disturbance happens either by conjunction or by disingression. Bogdanov explains that the beginning of conjunctive processes consists in the “breach” of a tektological boundary between two complexes, and this breach is the start of a new system. This point of origin of a new system is a conjunctive organizational crisis (or crisis C). Likewise, the creation of a new tektological boundary through complete disingression is a form of organizational crisis. This is the production of separateness, a transformation in the life of a system that can be denoted as a crisis of disingression (or crisis D). All crises are reducible to these two types: “revolutions in society usually represent a breach in the social boundaries between various classes; the boiling of water, a breach in the physical boundary between the liquid and its atmosphere.”<sup>33</sup> Just as with conjunction and disingression in general, Bogdanov considers crisis C to be primary and crisis D to be derivative.

### *Regulating Mechanism*

Bogdanov considers regulation to be, strictly speaking, only a different point of view on the same processes described above as the “formulating” mechanism, in that the processes of regulation are fully reducible to formulation. Nonetheless, this distinct set of concepts is useful for describing phenomena on a larger scale. The basic concepts introduced to explain regulation are conservative selection, dynamic equilibrium, progressive selection, and negative selection.

Bogdanov considers the general principle of selection to be universal in scope, applying to every conceivable type of system. In its more general form, it simply applies to preservation or destruction of systems. Bogdanov calls this basic mechanism of selecting what is preserved and what is destroyed “conservative selection.” To demonstrate this universal applicability, Bogdanov gives examples from diverse spheres of experience, ranging from ecology to construction to psychology.<sup>34</sup> For example, Bogdanov argues that “the struggle of classes and groups in society is always directed to the destruction of certain social forms and relationships and the support and strengthening of others in conformity with the interests of the struggling collective.”<sup>35</sup> This struggle is reflected in communication and culture through the “affirmation” or “negation” of ideas that are judged to be true or false.<sup>36</sup> On an unconscious level, the process of selection determines the dominant relationships and ideologies in various groups and classes according to “the permanent and common conditions of its life,” i.e., the social environment.<sup>37</sup>

In every case of selection there is an “object of selection,” an “agent or factor of selection,” and a “basis of selection.”<sup>38</sup> The object of selection is that which is being selected, e.g., a work of literature. The agent of selection is what acts on this object. In the case of a work of literature, the agent of selection is first the author, who makes choices about the composition of the novel, and then the audience, who will determine the success of the work according to their preferences. The basis of selection is the specific aspect of the object that will determine the preservation or destruction of the object. Insofar as the audience judges the book by its cover, the basis of selection would be the cover art, which either leads to a purchase or not.

The next concept Bogdanov introduces to explain the regulation of systems is “dynamic equilibrium.” This concept is important to Bogdanov’s framework because it emphasizes the fundamentally historical aspect of his worldview: that is, the fact that we live in a world of processes rather than a world of things. To the extent that a given system appears to be a “thing,” a stable and unchanging object (or in the terminology of selection, to the extent that the system has been *preserved* rather than destroyed), this is an illusion that results from the dynamic equilibrium of processes of “assimilation” and “disassimilation,” or “identification” and “disidentification.”<sup>39</sup> In other words, there must be a balance between inputs and outputs. For example, humans shed our cells at a rate of full replacement every seven years, “even the composition of our skeleton,” and in this regard we are different people. Yet, because this process happens continuously, I am still “practically” the same person I was seven years earlier. Bogdanov says that all

“stable complexes” are stable only to the extent that they maintain a relatively stable state of dynamic equilibrium between the system and environment.

Bogdanov next introduces the term “progressive selection” to denote those objects of selection that are not only preserved by a dynamic equilibrium of inputs and outputs, but which grow and develop due to a relatively higher degree of inputs than outputs. Bogdanov argues that perfect dynamic equilibrium is an ideal case, and moreover, a perfect balance would ensure preservation only under the condition of a perfectly stable environment. Thus, objects preserved by selection are in general the objects of progressive selection in which there is a preponderance of assimilation over disassimilation, accounting for unfavorable fluctuations in the level of resistance encountered in the environment. Given that inputs are necessarily assimilated from the environment, Bogdanov explains that “the *dynamic element of the preservation* of a complex lies in the growth of its activities at the expense of the environment.”<sup>40</sup> In his view, this principle applies to every object of selection, including humanity as a whole. Thus, the “collective self-preservation” of humanity, which occurs whenever “production is greater than consumption,” always comes at the expense of nature.<sup>41</sup>

The general result of progressive selection is the increase of elements of a complex, the quantity of which will continue to grow until a process of disassimilation balances it out, or an organizational crisis causes the complex to divide. As a complex grows by progressive selection, it will tend toward “growing complexity and heterogeneity of the internal relationships of the complex,” an increase in the number of

“contradictions” in the complex, and thus to a reduction of its overall “resistance to division,” precipitating the crisis D. <sup>42</sup>

To avoid the tendency for progressive selection to create crises, a complex must undergo a process of negative selection: i.e., a process in which disassimilation prevails over assimilation, thereby reducing the number of elements in a system. As a correlate of the quantitative reduction of elements, negative selection will tend to increase the homogeneity of a complex and eliminate internal contradictions. This follows from the general principle of selection because negative selection acts first on the weakest linkages of a complex. Or, as Bogdanov puts it, “under the influence of the environment, first of all, those elements separate which are least firmly coupled with the whole, and whose connections lessen the homogeneity of the whole.”<sup>43</sup> Processes of negative selection may be conscious or unconscious. Thus, Bogdanov explains in *Art and the Working Class* that an artist is regulating the development of art through the process of self-criticism, but also that the audience is spontaneously regulating the development of art by their reception of the work. Works of art not chosen for display in a gallery or that are not purchased have been negatively selected. The typical result should be to produce a higher degree of harmony in an artist’s collection as a whole.

### **Complementary Correlations and Mutual Regulation**

Bogdanov argues that “an experienced organizer in any field” must constantly strive to eliminate contradictions and selectively organize “complementary correlations” between the parts of the whole. Complementary correlations are formed when the output

of one element is the input for another element in the same complex; in other words, complementary correlations are processes of mutually beneficial interaction and exchange. According to Bogdanov, “‘Interaction’ in general, cannot be conceived in any other way than in the form of the mutual transfer of activities: loss on the one side, passing to assimilation on the other, and conversely.”<sup>44</sup> Such interactions can be described as a complementary correlation, he explains—when “the *stability* of a system is achieved in this way, i.e., its *preservation* in the midst of destructively directed influences of the environment.”<sup>45</sup>

This general principle is equally true for the manager responsible for organizing work in “an economic enterprise, a government department, a professional or political group,” and for the intellectual, an “organizer of experience—a scientist, philosopher, artist.”<sup>46</sup> In developing a system of scientific classifications, for instance, Bogdanov thought that any “departure from complementary correlations and any incompleteness in them is considered to be an imperfection, a defect of the system” because “where the principle of complementary correlations is not adhered to in a given system lie the points of lowered resistance.”<sup>47</sup> In the case of a scientific system of concepts, it must be capable of resisting the onslaught of criticism. Likewise, if there is a lack of complementary correlations in a working group (what is more often called “synergy” today), the group may not be able to resist the influence of disorganizing ideas—sending the group into an unproductive conflict rather than focusing on the common task.



Organizers also ensure the regular maintenance of a system. Bogdanov defines a “regulator” as “a device which serves in order to maintain some process at a definite level.”<sup>48</sup> As an example, Bogdanov describes how a machine may be built to run at 1,000 revolutions per minute, and then “with any movement beyond this level it retards the movement; and when, on the contrary, the speed does not reach this magnitude, it acts in an accelerating fashion.”<sup>49</sup> Bogdanov thought that the ideal form of social regulation would involve a device that he calls a “bi-regulator,” a system in which “two complexes *mutually* regulate each other.”<sup>50</sup> Such biregulators are often found in nature and are also “widespread” in social organizations characterized by “the ‘mutual control’ of individuals and institutions, etc.”<sup>51</sup> Most importantly, “*The biregulator is a system for which there is no need of an external regulator because the system regulates itself.*”<sup>52</sup> In other words, Bogdanov thought that a self-governing society, just like a self-regulating system, was clearly feasible on a purely technical level. In such a world, everyone becomes an organizer. The models for such a society already existed. The challenge would be to scale up these models to the unprecedented level of a whole society, or even the whole of humankind.

### **Chain Selection in the “Stratigraphic” Society**

Bogdanov argues that for a given object, whether it be a “crystal, a living body, psychic association, or a society,” the effects of the environment and subsequent adaptations produced by selection will not be felt immediately on every part of the object. Instead, the effects will begin at the boundary between the system and

environment or what Bogdanov calls the “frontier layer,” and proceed next to “those elements which are most closely connected with this front row, etc. going ‘stratigraphically’ from the outside to the inside.”<sup>53</sup> Bogdanov calls this process of selection from the outside to the inside a “chain selection,” with each “layer” of the system being likened to a link in the chain. Bogdanov makes clear as a universal formal principle that the terms “inside” and “outside” must be understood as spatial metaphors, and that “tektological boundaries” do not necessarily correspond to “spatial” or “geometrical” categories. This is the case, he notes, in psychical and ideological systems, which are not easily understood in spatial terms. But nonetheless, Bogdanov argues that the spatial metaphor is useful for interpreting the chain of social adaptations that determine the shape of a given ideological form.

For a society, Bogdanov uses the term “technology” to designate all of the “frontier” elements on the boundary between the social system and the natural environment. By technology, Bogdanov means the production and use of technical instruments. Technological adaptations are “forms of the immediate relationship of people to the environment, of the immediate struggle of society with external nature”<sup>54</sup> and are “directed toward the *immediate* struggle of society with external nature—toward *direct* action upon it.”<sup>55</sup> That is why he considered technology as a “frontier.” Technology was the medium between humans and nature, the way we encountered it and sought to control it. Wherever humans confronted nature, they did so through technology. When Bogdanov refers to machines as technology, however, he emphasizes

this is only a figure of speech, because a) there is no machine-in-itself, and b) the physical object apart from its embedment in a socio-technical system would have no relation to society, and hence social selection would have no impact on it. In this way, the term “technique” would seem to be more suitable than “technology,” which tends to objectify and externalize what is, for Bogdanov, a human capacity to organize the natural world. He writes:

The term ‘technological adaptation’ is often applied to the means of production - tools, machines, etc. —But this is an imprecise, figurative use of the word that is not suitable for our goals. Only living things adapt; only forms of life can be forms of adaptation. Tools, machines, materials of labour are *elements of external nature* that humanity, in the process of adapting, disposes in ways that are most beneficial to itself. Here ‘adaptation’ consists in the skill of people to act on external objects in such a way that they obtain the most expedient combination of them - in the form, for example, of an axe or motorized machine - and, further, in the skill to use that combination. Consequently, technological ‘adaptations’ are located *in people’s psyches* and not outside them.<sup>56</sup>

Once again referring to his labor theory of speech, technology is not just the external machines or tools that we use. It refers also to the meanings of those machines and tools as well as the technique employed to use them—techniques that include organizational science.

The next layer of the chain selection on a human society is referred to as “economics,” which Bogdanov defines as the “relations of people in a socio-labouring process,” or simply “production relations.”<sup>57</sup> As the next link of the social system after technology, economic relations of collaboration are determined by the existing socio-technical infrastructure. The two most important concepts for Bogdanov’s theory of economic relations are “class” and “social group.” Thus, Bogdanov explains that “the

beginning of the division of society into classes and social groups lies in the same place that any social development in general lies – in the technological process.”<sup>58</sup> When a society discovers a new resource or a new way of exploiting existing resources, it changes the technical relationship to the environment; as a result, the society must now make decisions about the organization of production (i.e., who does what and for how long). When new technology provides access to a greater quantity of resources, human groups can begin to accumulate a surplus, and the existence of a surplus raises the question of distribution and consumption (i.e., who gets how much of what).

Both arenas of decision-making about social-labor collaboration can produce inequalities of power and experience. Changes to the variety of productive activities may begin to produce specialized knowledge of those activities. One person may be better at tracking a deer through the forest, whereas another person might be better at identifying nutritious plants. As the divergence grows, there tends to develop inequalities of labor experience. This is the origin of social groups. As the variety of tasks that are necessary for the regular functioning of a society increases, a coordinating plan becomes necessary. A typical response has been “the separation of the organisational function from the implementational function” or what is often called the division of mental and manual labor.<sup>59</sup> This divergence produces inequalities of experience but also inequalities of power. By exercising an outsized influence on all other members of a society, the organizer(s) can use this power to accumulate a greater share of the surplus product and further extend their power. This is the origin of class. Summarizing, Bogdanov explains

that “in my terms, the typical relationship between social groups will be *specialisation* and the typical relationship between classes will be *domination* and *subordination*.”<sup>60</sup>

Such changes in the technological and economic processes that organize a society are necessary to produce classes and groups, but according to Bogdanov, the real “formational point”<sup>61</sup> for these social collectives lies in the final link in the social chain: ideology. Bogdanov explains that “as long as the differences or even the specific contradictions do not go beyond the confines of the technical process, they are no more than differences and contradictions among parts of one whole – something that is inevitable, it goes without saying, in any complex form of life.”<sup>62</sup> To illustrate, Bogdanov distinguishes between the specialization that took place in the ancient Indian commune and the specialization that was typical in the city commune of the Middle Ages. In both cases, there was specialization and hierarchy in the organization of labor. However, according to Bogdanov, in the Indian commune there were no social groups or classes because “the entire realm of thinking and norms in everything important remained identical for all members of the collectivity.”<sup>63</sup> To the extent that a hierarchy existed, it was a generational hierarchy in which the elders were distinguished as the keepers of tradition (i.e., those who have inherited and preserve the necessary technical rules for organizing social production). Importantly, the difference between their labor experience and that of their younger kind was a difference in *degree*, not a difference in *kind*.<sup>64</sup>

By contrast, in the city commune of the Middle Ages, “each craft was organised in a special social group that lived an independent life in the sphere of technology.”<sup>65</sup> The cobbler lived a separate life from the smith, and each protected the technical rules of their craft as trade secrets. They each developed an independent “system of handicraft instruction” to educate new members of their group and a “system of norms” to regulate both the internal and external relations. Within each specialized craft, there were hierarchical divisions between the “journeymen” and their “masters.” The masters were in charge of organizing the business, the education system, and system of norms, and they would prevent the journeymen from attaining the full privileges of their craft for as long as possible.

Whereas differences of specialization and hierarchy were minor in the Indian commune, in the city communes of Europe they reached the necessary tipping point: miscommunication. According to Bogdanov, “the real separateness of social groups and classes begins where the division of labour gives rise to *mutual lack of understanding* among people.”<sup>66</sup> The result is the formation of two separate ideologies, each containing their own words, ideas, and norms, and to some extent they each develop their own class or group dialect within the common language. When the journeymen began to realize they had separate interests from their masters, they began to develop a distinct set of organizing norms and thus an independent class ideology. However, Bogdanov observes that their social group ideology was already so strong that they never thought to organize alongside journeymen from other crafts. “Thus,” Bogdanov concludes, “the *basis* of

these social divisions lies in the technological process, in ‘production’; but their *formational* point is ideology or, more accurately, ‘ideologies.’”<sup>67</sup>

Classes and groups only truly exist once they have been consciously organized into distinct ideological groupings. As already explained, ideology provides the “skeletal” or “degressive” forms needed to stabilize the idea of these classes and groups in the consciousness of their members; once stable, these ideas become available for propagation through communicative exchange. Thus, classes and groups result from what contemporary organizational communication scholars have called the “communicative constitution of organizations.”<sup>68</sup> In fact, more than simply consolidating what already exists in technology and economics, Bogdanov argued that ideological forms provide “the organizational environment for the *entire* economics, and *entire* technology; consequently, here the line of chain selection and adaptation may now begin from new ideological complexes: a reorganization of economic and technical processes in those parts which were not yet touched.”<sup>69</sup> Thus, for Bogdanov, although ideological developments are ultimately “derivative” from technical and economic change, there are moments in history where they play the decisive role in social and cultural change. A cultural revolution may be necessary to liberate the full productive force of new technologies and a new system of collaboration.

### **Sociomorphism**

Having connected the origin of language to labor and identified how division into classes and groups tends to produce distinct ideologies, Bogdanov argued that his

“stratigraphic” model of society provides an organizational point of view on what Marxists have traditionally called base and superstructure, social being and social consciousness, or practice and theory. If labor is the basis of language, and labor is divided in predictable patterns of specialized social groups and hierarchical classes, it is reasonable to believe that forms of language, and thus communication and culture in general, will correspond to particular intersections in the economic social-group-class matrix. Bogdanov theorized that there is a correlation, particularly an “analogy” or “parallelism,” between the formal structure of labor relations in a given economic system and the formal structure of ideas in its corresponding ideological system. In other words, the abstract formal structure of labor experience provides a model, and when words, ideas, and norms are fed into this model, they produce a more or less stable worldview.

This was a view that Bogdanov developed early in his philosophical career and which he retained and continued to clarify and rework with each terminological change in his overarching theoretical system. This framework can be used to explain what might be called “macro-worldviews,” such as authoritarianism and anarchy, which identify the basic structure of worldviews in multiple distinct historical social formations; it can also help identify a wide range of what Bogdanov conceptualized, following his evolutionary terminology, as “intermediate” or “transitional” worldviews and their ideological elements. The concepts of class and social group can also be used to make predictions about newly emerging worldviews and whether a given worldview is likely to achieve a



hegemonic status as the new dominant ideology, based on how well it is adapted to its audience. Bogdanov applied his theory of sociomorphism to predict that socialist society would be a synthesis of the authoritarian and anarchic forms that preceded it, that it would be based on a form of labor collaboration he called “synthetic” or “comradely” cooperation, and that it would produce a proletarian culture premised on equality, collectivism, objectivity, dynamism, and limitless progress. To see how Bogdanov arrived at this prediction, we will need to take a closer look at authoritarianism and anarchy.

### **Authoritarianism**

The general organizational structure of authoritarian systems is “centralism” or what Bogdanov refers to by the Latin term “egression,” meaning “going out of the ordinary.”<sup>70</sup> Bogdanov describes the origin and development of social egression, authority, as a process of selection which progressively increases the divergence between members of an originally equal and homogenous group. Because a practical homogeneity is never characterized by precise identity (no two things are exactly alike), there will be small but measurable differences in the skills, aptitudes, and physical characteristics of group members, and divergence is very likely to occur over time. Even without codifying these differences into explicit systems of rules, certain members begin to distinguish themselves in a process of leadership emergence. Indeed, Bogdanov observes that even now, “the emergence of leaders can be observed in friendly circles of children; but also any groupings of grown up people – professional, ideological, or

political – arising on the basis of formal equality of all members.”<sup>71</sup> These tendencies toward group leadership may be counteracted and remain relatively undeveloped, exercising little influence over the direction of the group. However, if not checked, these tendencies will result in what Bogdanov calls a “fully expressed egression” in which the influence of the leader outweighs the influence of all the followers.<sup>72</sup>

Bogdanov describes egressive systems in general, abstracting from human groups, as systems in which a “central complex” has more influence on the direction of the whole than the combined influence of all “peripheral complexes.” In all such systems, the relative inequality between the central complex and the peripheral complexes will tend to increase because the central complex has a higher degree of organization; as such, it “better assimilates the activities from the external environment and better counteracts its destructive influences.”<sup>73</sup> Moreover, if the central complex is only slightly stronger than its environment but the peripheral complexes are slightly weaker, the central complex will undergo positive selection while the peripheral complexes undergo negative selection. In both cases, the influence of the center increases with respect to the periphery.<sup>74</sup>

This analysis of egressive difference can explain the authoritarian system based on the production relation of central (exploiting) and peripheral (exploited) classes and groups in a given society:

Two main groups of social activities are, on the one hand, those which are directed at production and, on the other, those which are related to consumption. With a developing exploitation, the environment of different parts of the system changes unevenly in relation to these two groups. As far as the exploiting

persons, groups and classes are concerned, the higher is the exploitation, the wider are the possibilities of consumption for them; and in this sense, the egressive difference of the exploiting persons, groups and classes, evidently, does not cease to grow as long as the basic structure of the system is preserved.<sup>75</sup>

Thus, the authoritarian system is characterized by a strong and growing dualism between a central organizer-leader or collective of organizers whose power and opportunities for consumption will continue to grow, and a periphery of implementer-workers whose relative level of consumption and influence over the direction of society will continue to shrink. A strict authoritarian system is one in which the collective action of a fully united public is insufficient to influence the decisions of the political leader. In an authoritarian society, one person, one group, or one class of people organizes society, and all other members of society implement the organizational directives of the organizer(s).

#### *Authoritarian Ideology*

Authoritarian societies lacked a high degree of social complexity, but they were homogenous and organized with a stable model of labor cooperation. Bogdanov found that “the original unity of the organizational point of view is preserved throughout the entire epoch of the authoritarian mode of life,”<sup>76</sup> a fact which he attributes to the idea of a God equally in control of human and natural affairs. If everything falls equally under the dominion of God’s law, there must be a basic unity of the world, and knowledge about the world is simply the revelation of this unified law. As a result, “there is no thought that the processes of nature, elemental and social life can have their own laws, different for different fields of experience, that the subordination of facts to the known regularities and the obedience of people to authority are things of different order.”<sup>77</sup>

Society and nature are described using the same framework, with the explanatory principle derived from social life playing the leading role. Thus, because authoritarian cooperation is structured by command and submission, the natural world is organized by the commands of God, which all natural objects are bound to obey: “the sun daily performs the path from east to west because it was so instructed; sickness develops in a definite sequence because it carries out a corresponding command, etc.”<sup>78</sup> Indeed, the beginning of the universe, as presented by the Bible, is “the word” of God.

Authoritarianism is the relationship between the one who thinks and commands and the one who listens and obeys, between masters and slaves, power and submission—in short, organization and the organized. Wherever there is a binary, Bogdanov is likely to find a lurking authoritarian impulse.

The original dualism of authoritarian ideology is animism. According to Bogdanov, animism is characterized by “the division of man and other living beings, and originally of all objects of nature, into ‘soul’ and ‘body.’” This ideological dualism corresponds to the duality of authoritarian labor relations: that is, “the relation of an actively commanding element and the passively submissive element, or the leading and the executing element.”<sup>79</sup> Consistent with the mechanism of chain selection, Bogdanov describes animism as an ideological adaptation to the economic environment. And although the process of adaptation is not always so simple, Bogdanov argues that animism is simply “a transfer of the organizational form of the labour relations of people into thought.”<sup>80</sup> This framework is modified and extended with the progress of

organizational complexity in each subsequent historical social formation. Thus, authoritarian worldviews “present the structure of the universe either according to a patriarchal, ancestral or feudal structure: in the earlier religions separate ancestral gods exist, then come tribal gods; in the more developed societies, there is a chain of many gods in which petty gods are the vassals and the more important gods their suzerains, and at the head stands the uniting god-sovereign.”<sup>81</sup> In all these authoritarian systems, the basic ideological framework centers on “the idea that certain elements of life are essentially inferior and are subordinated to others that are essentially superior.”<sup>82</sup>

Bogdanov gives a series of examples:

Authoritarian thinking appears in an understanding of social nature in which some people are considered to have been specially created for dominion and freedom and others have been created for subordination and slavery. Authoritarian thinking appears in conceptions of human individuality in which the individual is seen as the combination of an active, creative, higher principle – spirit – with a passive, inert, lower principle – matter. Authoritarian thinking appears in explanations of nature in general that divide the world into secret, superior forces, which act independently and freely, and ordinary, inferior objects, which move and change only under the influence of these forces and which are entirely determined from the outside. In practice, authoritarian thinking is expressed in people’s absolute subordination to and worship of other people or some elements of nature – of both social nature and external nature.<sup>83</sup>

Thus, authoritarianism is characterized by a logic of qualitative difference that distinguishes superiors from inferiors, and a corresponding set of emotions such as awe, wonder, and humility before the mysterious and unknowable mind of God, the ultimate figure of authority.

### *Crisis in the Authoritarian System*

Bogdanov considered authoritarian organizations to be generally limited because of the law of the minimum. The organizational “law of the minimum” states that “*the stability of the whole depends on the least relative resistances of all of its parts at any moment of time.*”<sup>84</sup> In a strictly authoritarian system where the whole society is governed by the dictates of a single person, the stability of the system as a whole depends on the organizer’s ability to process all the necessary information and adapt to every change in circumstances. This means that any weakness in the organizer presents a potential catastrophe. As Bogdanov puts it, “a partial and even temporary individual inadequacy is reflected, at times irretrievably or even ruinously, on the entire collective.”<sup>85</sup>

Due to their conservatism, authoritarian systems of ideology are more likely to present resistance to change even when it is necessary to adapt to rapid changes in their environment. Bogdanov gives the example of a military company in which a majority of commanding staff are killed, and the soldiers who remain must recreate their organizational structure. Bogdanov argues that soldiers whose prior experience was more authoritarian, such as peasants from a patriarchal commune, will be unlikely to take the initiative to lead the group and may even have difficulty transferring their organizational allegiances to a new set of organizing leaders. Moreover, because of skeletal organizational forms such as ranks and uniforms, the group may not be able to correctly distinguish between a “sergeant major” who is “unable to direct the company in a critical situation” and an “ordinary soldier who is fully suitable for command.”<sup>86</sup> If

the ideological symbols of rank authority have “ossified in the consciousness of the majority of soldiers too firmly, they will not dare or, perhaps, dare too late...to violate the ‘order,’ and the outcome will turn out to be a subsequent destruction of the whole.”<sup>87</sup>

Authoritarian systems and ideology are deeply conservative; indeed, “from historically known social systems, authoritarian systems are characterized by the greatest conservatism,” reflected in their inability to adapt their institutions and ideology to a changing environment.<sup>88</sup> In general, Bogdanov predicts that the polarity and conservatism of authoritarian systems will result in the same course of events wherever they exist for a sufficient time:

Partial contradictions are discovered almost from the very beginning. A psychological divergence develops between the central complex and peripheral complexes, between the “organizers” or rulers and the “executants” or subordinates, hampering their mutual understanding; and then a tendency to lessen this understanding intensifies more and more. Hence, there occur increasingly more frequent ‘errors’ and unconscious, disorganizing acts on both sides;...a slave-owner or a despot, not heeding the feelings of the people subordinated to them, exhibits ‘whims’ and ‘arbitrariness;’ from this secret or open reactions of bitterness follow; all these are origins of a fruitless waste of energy lowering the viability of organizations.<sup>89</sup>

As we have seen, the formational point for groups and classes is ideology. Here we find that authoritarian modes of organization produce a persistent class division in society that can be, and usually is, organized ideologically as the expression of opposing interests. Bogdanov concludes that, from the patriarchal commune to the ancient slave societies, the tendency toward an “intensification of similar contradictions usually led to the disintegration and collapse of authoritarian groupings.”<sup>90</sup> He describes the final crisis of the authoritarian system as the “replacement of conservative social structures by

structures carrying the seeds of progressive development on the basis of contradictions—authoritarian by capitalistic structures.”<sup>91</sup> Capitalism carries the seeds of progress, and with it, an increasing number of systemic contradictions.

### **Anarchy**

Anarchical societies are characterized by a more “federal” structure and a high degree of complexity whereby formally independent organizations are loosely coupled with the relations of exchange, often forming diverse complementary correlations between businesses whose inputs are the outputs produced by others. Bogdanov refers to anarchical labor relationships as “the distinctive trait of *any* commodity society”; however, just as practices of exchange have existed since long before the emergence of capitalism, anarchical relationships have existed, to some degree, for as long as there has been trade between and within human societies.<sup>92</sup> Bogdanov traces the development of commodity production as it grows in each stage of commercial society—from its pre-capitalist forms in slave society and the handicraft system through to merchant capitalism, industrial capitalism, and finance capitalism. The production of commodities for sale on the market grew during this time from a relatively minor part of the total economy to the dominant form of economic organization. Capitalist societies are characterized by a significant growth of exchange relations, a qualitative change in the division of labor, and commodity production: that is to say, production with the intent to exchange goods for money rather than to produce necessary resources for immediate consumption.<sup>93</sup>



The progressiveness of anarchical societies is due to the deeper knowledge of technique and the spread of knowledge through communication in trade with other cultures. Whereas in previous societies, every member was more or less capable of doing all the tasks required for the reproduction of society, the social division of labor in capitalist systems is such that the cobbler makes only shoes and the smith only steel tools, and so on. As a result, the “blacksmith, tailor, and farmer, each in his own sphere mastered with the greatest fullness the ways and conditions of production bequeathed by ancestors, but he himself little-by-little, at first imperceptibly and later consciously, perfected and amplified these methods.”<sup>94</sup> Thus, even while specialization leads to a narrowing of experience for each individual, it increases the accumulation of experience in society as a whole and raises the total productivity of society. This increase in productivity, coupled with a system of manufacture for sale rather than for immediate consumption, increases the opportunities for trade with other societies. Thus, side by side with the division of labor, “progress occurred through borrowing from the inhabitants of other regions and countries.”<sup>95</sup> In general, Bogdanov locates the tendencies toward integration in communicative exchange, which creates a common domain of experience, while the tendencies toward division result from market exchange.

Market exchange between independent businesses is the basic mechanism of capitalist society, and Bogdanov considered this “anarchy of the market” to have a deeply disorganizing influence on social systems. As Bogdanov explains, “in market

exchange, the collaboration of separate households has the form of a struggle over price between buyers and sellers, over markets among sellers, and over the possibility of buying goods among buyers.”<sup>96</sup> The basic form of interaction is competition rather than cooperation, with each pair of individuals involved in an exchange having partially opposing interests. The process of trade often “reduces to a series of mutually destructive efforts,” and the “efforts of competitors to undermine each other” can be particularly destructive of the overall productive capacity of a society.<sup>97</sup>

Whereas authoritarianism is a system with a single center, anarchy is a multi-centered system. In a capitalist system, “each of its component complexes—enterprises, has its special center in the person of the boss, owner, individual or a collective.” Thus, anarchy also arises in a capitalist economy because its parts, individual businesses, are “*formally independent* of each other.”<sup>98</sup> Each center makes decisions about what and how much to produce without considering the needs or interests of all the others. No enterprise controls the whole labor process in a given society, nor even a whole branch of industry. Yet, while these organizations are formally independent, they are highly interdependent on many other organizations they rely upon as producers of their raw materials and/or consumers of their finished products. Moreover, these interdependent organizations do not grow at the same rate; “some of them lag behind, others press forward, so that for a great number of them there is insufficiency of either sales or the necessary means for their work.”<sup>99</sup> This uneven development reduces the overall productivity of the social system because the whole is constrained by the “law of the

least.” For example, if car manufacturers rely on the production of semiconductors, then a shortage in semiconductors will produce a shortage in cars even if all the other components are readily available. Another hazard of uneven growth is the potential shortage of consumers, that is, of money available for the purchase of goods that have already been manufactured. Where production rapidly exceeds consumption, there are “general crises of ‘overproduction,’ with the enormous destruction of productive forces and widely unfolding processes of disorganization.”<sup>100</sup>

Though formally independent, capitalist organizations do not have *real independence* in the sense of self-sufficiency. Their productive activity depends entirely on the vicissitudes of uncoordinated market exchange. Thus, decisions made in one boardroom can have serious consequences on producers and consumers on the other side of the world, and yet there is no direct link of communication and collaboration between them. With the progressive development of capitalist societies, “sooner or later, systemic contradictions become so intense that they surpass the organizational linkage; then a crisis must ensue, leading either to its transformation, or to disintegration, a collapse.”<sup>101</sup>

#### *Anarchical Ideology*

Anarchical ideology adapted to the technological and economic conditions of the market by producing a system of specialized knowledge. Specialization brought about by the division of labor “creates a partial *qualitative* heterogeneity of people’s life experience,” and from this initially small difference a process of progressive selection accelerated the differentiation exponentially.<sup>102</sup> Specialization also challenged the

prevailing authoritarian ideology through a process of secularizing new knowledge. According to Bogdanov, it became clear in the anarchical systems that new “perfected modes and technical organizational rules were not now prescriptions and revelations of gods,” because they were no longer the simple repetition of traditions handed down from the ancestors from time immemorial. Moreover, a growing range of technical rules “were borrowed from without”—that is, learned from trade with foreign cultures—and “to submit to them as commands of alien gods was inadmissible.”<sup>103</sup> The new secular knowledge belonged to specialized groups of laborers in whose particular interest it was to accumulate the new techniques. At first, the new knowledge was passed down in the old ways, transmitted orally from generation to generation, master to apprentice, but over time knowledge became codified into scientific manuals, forming the basis of specialized sciences in each branch of labor activity. Thus, “agricultural knowledge became the material for agronomy, the science of farming; blacksmith’s knowledge became the material for metallurgy; that of mining for the science of mineralogy, etc.”<sup>104</sup> As the divisions between different fields are consolidated in the consciousness of these collectives, different social groups are formed; each social group looks upon the world with a distinctive point of view and a different set of metaphors by which to interpret their everyday experience. This introduces new possibilities for mutual misunderstandings to arise within different segments of the same social system.

According to Bogdanov, the ideology of “individualism” began to emerge with the earliest processes of exchange and was greatly accelerated by the specialized

division of labor in capitalist societies. The first historical individual was the patriarch of clan societies and only insofar as he was responsible for conducting trade with neighboring peoples. Thus, Bogdanov links the development of individualism to the production of “personal private property,” first as the de facto situation in foreign exchange, and then weakly reflected in the consciousness of the organizers. The ideology of individualism began to flourish in ancient Athens, where “the development of exchange relations strengthened the mutual ties among the elements of demos, and a newly developed group appeared on the scene – the merchants – then demos combined against the large landed aristocracy and conducted a stubborn struggle against it for political rights.”<sup>105</sup> As exchange became an increasingly prominent feature of social life, independent artisans and merchants began to see the “tools and products” that they bought and sold on the market as personal property with no relation to other producers. Bogdanov calls this belief in the social autonomy of commodities the “fetishism of private property” or “commodity fetishism,” and he argues that this fetishistic relationship to property is the determining cause of individualism.<sup>106</sup> This “commodity fetishism” arises with particular strength in the era of merchant capitalism, which “helped the further emancipation of individuality” from the authoritarian relationship that still prevailed in the patriarchal workshops and petty-bourgeois families.<sup>107</sup> Indeed, Bogdanov argues that the bourgeoisie played a very progressive role during this period as they fought all the vestiges of authoritarian power in state and society, championing “the ideas of individual freedom, first economic and then political.”<sup>108</sup> However, as the

proletariat began to grow and challenge the organizing authority of the bourgeoisie during the period of industrial and then finance capitalism, the fight against authoritarianism gave way to a struggle to maintain bourgeois authority.

Bogdanov argues that the ideology of individualism underwent a transformation in character during the epoch of monopoly capitalism. In his view, “the authoritarian aspect of the social system, preserved in the form of the capitalist State, with its bureaucracy and army, and the subjection of the workers in the factory, even if within the limits of a contract, &c.,” was stabilized in a rearguard action; thus, the “bourgeoisie then became indifferent to the ideals of liberty, and directed its efforts to the maintenance of authority in the form of ‘order’ protected by militarism.”<sup>109</sup> The individual ego has remained the center of bourgeois ideological life, but there are also stubborn remnants of authoritarianism. In bourgeois art, for example, Bogdanov argues that “the center is their personality, their destinies, their experiences,” all focusing on “individual psychology” and “subjective feelings.”<sup>110</sup> However, insofar as elements of domination and subordination continue to exist between employees and employers in the working life, and between citizens and the state in political life, one should also expect to see art glorifying “the activities of gods, heroes, kings, and leaders.”<sup>111</sup>

In addition to the tendency toward differentiation in anarchical society, there is an opposite tendency toward integration. Thus, even during the capitalist epoch, the “*common* content of the life of social groups not only does not disappear but grows in its turn, especially due to the mutual communication of people.”<sup>112</sup> For Bogdanov,

anarchical systems are held together in large part by the glue of common sense, which is found in everyday speech.<sup>113</sup> He argues that the wisdom gained through everyday experience “plays a tremendous role in life and serves as a strong cement for the uncoordinated and anarchical collective” because it is “many-sided and practical,” in sharp contrast to the narrow and specialized knowledge that prevails in the sciences of anarchical societies.<sup>114</sup> Everyday speech, the “general language,” retains its connection to “the basic metaphor” and with it the “unity of the organizational point of view.”<sup>115</sup> The tendency toward integration can even be accelerated by specialization and the division of labor itself, to the extent that the complementary correlations between businesses requires “necessary and frequent...mutual exchange of experience and ideas.”<sup>116</sup> From the special technical sciences there emerged more general and abstract sciences. For example, the arts of land measurement first became part of agronomy as it was necessary for dividing plots of farming land, but as people discovered that “the measurement of tines, angles, figures, and the explanation of their mutual relationships and dependence” applied to various other field of labor, from “engineering” to “blacksmithing” to “optometry” to “art as the basis of perspective,” “to the jewelry business for polishing stones,” these technical methods became part of the abstract science of “geometry.”<sup>117</sup> Overall, however, the tendency toward differentiation predominates over integration in anarchical social systems, and as a result, “the world of thought became as uncoordinated and anarchical as the world of practice.”<sup>118</sup>

Bogdanov describes two phases or types of bourgeois knowledge: philosophy and science. In his view, both philosophy and science, like the religious form of knowledge that preceded them, strive to organize all of experience in a unified way. This is what Bogdanov calls the “monism of cognition,” which is a general organizing tendency that applies to the history of thought in general. However, the increasingly anarchical world of capitalism overcame this monistic tendency and splintered philosophy and then science into a series of highly specialized fields. Even the abstract generalizing sciences, such as geometry, chemistry, and logic—which “are in themselves the embodiment of the unity of organizational methods in the entire splintered system of collective human activity”—could not continue making progress toward a unified organizational point of view.<sup>119</sup> Instead, this specialization became a factor in the progressive selection of differentiated fields of knowledge; the “splintering of science complemented and strengthened the operation of technology, with the result that the former naive unity of the organizational point of view disappeared from the social consciousness, and nothing new appeared in its place.”<sup>120</sup> However, just as businesses in a capitalist economy are formally independent yet interdependent in practice, so the bonds between disparate branches of knowledge continue to grow more interdependent, even though this interdependence remains “disguised by formal separation.”<sup>121</sup> Insofar as the separation is merely formal, it is possible to overcome it by a reorganization of ideology. This where tektology and the organizational point of view provide a fitting response to the situation of modern science.



## Socialism

Bogdanov dreamt of a single “socially-organized society”; like Marx, he believed that in a maturing capitalist society, the preconditions for a collectivist socialism were appearing in embryonic form. This is the glowing portrait that Bogdanov paints of comradeship:

Let us imagine a comradely circle of people who are consciously striving toward one common goal that deeply permeates their entire life of feeling and will and puts its imprint on all their thoughts and ideas. For whomever lived in such a group - and who lived a real and not illusory life in it (because there can be illusory associations) - these relationships would forever remain the best and most precious of all the things that gave people living experience. These relationships would be the concrete form of the practical ideals of our time and simultaneously the embryonic form of the realization of those ideals.<sup>122</sup>

The collectivist world, the extension of comradely relations to all of humankind, presents us with a utopia of communication and culture, a world of perfect mutual understanding and all enveloping collective action.

The ineluctable tendency toward higher levels of organization leads to a new proletarian ideology and culture. Bogdanov begins his analysis, as always, with the frontier layer of technology, and here he identified the development of machine technologies, and particularly the tendency toward automation, as a key to the qualitative transformation of working experience in a “comradely” direction. Bogdanov was convinced that the development of automated machines would transfer the specialized knowledge from people to machines, thus producing a convergence among the previously specialized areas of technological experience and in the process, weakening the ideological boundaries separating social groups. Workers would be able to retrain

quickly and easily for jobs in different fields, and this would give rise to a “higher social unity” of what Marx called the general intellect.<sup>123</sup>

Bogdanov argued that, as a result of this technological transformation, “anarchy is removed from the worker's environment” through “comradely contact at work.”<sup>124</sup> Whereas under merchant and handicraft capitalism the workers had been too specialized and differentiated to engage successfully in collective action in defense of their interests, industrial capitalism had brought the workers together in massive factories. The collective nature of modern work and the collective interests of industrial workers were a part of everyday experience, and this gave rise to a vigorous union struggle. As Bogdanov saw in the 1905 Revolution, the united power of the workers could bring the whole state and society to its knees. Ultimately, Bogdanov predicted that the rise of self-organization in the labor unions and other “various class organizations” would “gradually but inevitably lead to a world union.”<sup>125</sup> These experiences of the proletariat with the new technology, with new comradely relations at work, and self-organization for struggle against the employers “arouses the *collective spirit* in the workers, and this leads to the formulation of the *ideology of labour collectivism*.”<sup>126</sup>

For Bogdanov, labor collectivism was the essence of proletarian consciousness. He describes labor collectivism as a “new cultural principle which comes to take the place of authority and individualism.” However, rather than simply a replacement, proletarian culture is a synthesis that draws the best parts from the authoritarian and anarchical cultures of the past while discarding the rest. Like authoritarianism,

collectivism grasps the organizational point of view and has a deep desire for unity, but it rejects coercive collaboration based on dualistic notions of superiority-inferiority and command-obedience. Like anarchy, collectivism strives to maximize free development, but it rejects the idea that this freedom is premised on a struggle between individuals. Instead, collectivism understands the individuals as a “living link” of the entire “labor community,” placing the system as a whole at the “center of strivings and interests.”<sup>127</sup>

Where comradely cooperation prevails, the pervasive mutual understanding and spirit of collectivism ensure there is no need for a formal code of conduct. Unlike the spheres of law or morality that depend on compulsory norms and obligations, science produces comradely norms of expedience: evaluated in terms of good and bad instead of good and evil. In contrast to moral prohibitions (e.g., Thou shalt not!), science produces technical recipes (e.g., If you want X then do Y). Bogdanov did not reify the distinction between amoral science and value-laden social theory, but instead argued that norms of expediency should take the place of moral norms altogether. For example, looking at the case of ideological work, Bogdanov described a relationship of “voluntary obedience” between an intellectual and the masses. He argues that each side subordinates themselves to the other in turn, and this process of exchange limits the top-down hierarchy of authoritarianism as well as the disorganization of anarchy. Thus, “the livelier is the communication of ideologists with their followers, the more their mutual interrelationship squires a comradely nature, the more both sides acquire a progressive psychology, and the more vital their work is.”<sup>128</sup> Lively communication is opposed to

“blind obedience,” which is conservative and elevates the intellectual above the masses in a “religious-sectarian form.” In a group of comrades there is no compulsion, only expedience. Not only is there no “legal compulsion” and no “moral obligation,” but for Bogdanov, there would not even be norms of “conditional agreement” in which contradictions are mediated by mutual toleration. Rather than tolerance, comradeship is characterized by harmonic composition.

In Bogdanov’s ideal society there is total individual freedom, even to the extent that word “freedom” loses all significance. But he believed this world of total freedom was only possible to the extent that a system manages to eliminate the real contradictory interests that separate individuals in an anarchical system and classes in an authoritarian system. Until that time, compulsory norms continue to play an important social role in ameliorating the conflicts between social groups and classes. Without compulsory norms, Bogdanov thought that contemporary society would simply fall apart.

Given the degree of group and class divisions that remain in contemporary society, creating a socially organized world will entail a tremendous process of integration or “contra-differentiation.” As an example of the process of contra-differentiation, Bogdanov describes a relationship between a husband and wife that is full of conflict and contradictions yet resolved through an increased capacity for communication and mutual understanding:

A husband and wife are engaged in conformity with the principle of complementary relationships; he in so-called “affairs,” she in domestic work. They differentiate their activities on this basis to the extent that in many things they begin to have difficulties in communicating with each other. There appear

misunderstandings, conflicts in petty things, arguments and quarrels; the family step by step begins to disorganize. The outcome may be either its destruction—a severance of the complementary relationship itself, or a revolution in the relations between the spouses. If they understand the real reason of the discord and, aiming to come to an agreement, intensify their interaction and begin to acquaint themselves closer with the affairs and interests of each other, in short, develop a mutual conjunction of their experience, then the harmony of the family may be re-established on new bases, broader and deeper than before.<sup>129</sup>

The solution to this problem is “simple,” and it has “frequently been advanced by novelists,” but the organizational point of view helps us to identify a “tektological difficulty” with this solution. The reintegration of the husband-and-wife system through contra-differentiation may conflict with “the divergence which gave rise to complementary relationships.”<sup>130</sup> If the stability of the husband-wife system depends on these complementary correlations, undermining them through contra-differentiation may ironically result in a crisis D—i.e., a separation of the couple.

In the transition from an anarchical society founded on market exchange, specialization, and class divisions, to a socially organized society that abolishes class distinctions and significantly reduces the degree of specialization, there will be similar difficulties and risks to the system as a whole. Indeed, Bogdanov thought that the transition from capitalism to socialism is not possible without a revolutionary crisis that breaks down the boundaries between classes and social groups and radically restructures the social system as a whole. But he also promises that if we can achieve the integral experience of a comradely culture, it will be worth the risks and the sacrifices. Bogdanov foresaw a grand synthesis of social group specialization into a general intellect and a

synthesis of the organizing and executing classes into a self-organized biregulator. The theoretical analysis of this process of historical social transformation is called the organizational point of view, the labor point of view, or simply, “scientific socialism,” and “its practical side is expressed in the struggle for the ideals of socialism.”<sup>131</sup>

### **The Role of the Revolutionary Intellectual**

Following Marx, Bogdanov argues that the point of culture is not just to reflect the world, but to change the world. While Marxism has often been conflated with “vulgar materialism,” a philosophy that treats culture as mere appearance and economics as the real phenomenon, it is plainly evident from the maxim that the philosophers “*should* change the world” that Marx believed cultural production *can* change the world. This is why Bogdanov took the time to analyze the role of culture in the midst of revolutionary action; why, in addition to political economy and philosophy, he also wrote novels and short stories; and why he dedicated years of work to building a program for proletarian culture, and after the 1917 Revolution, a mass proletarian cultural movement. First as a series of articles for *Proletarian Culture*, the journal of the Moscow Proletkult, and then as a standalone monograph, Bogdanov wrote the essays compiled as *Art and the Working Class* in 1918 to explain how the organizational-labor point of view can be applied to advance the socialist movement. In doing so, he clearly articulated in his works and exemplified in his own practices the role he envisioned for a revolutionary intellectual.

Put in a form of a list, these are the tasks that intellectuals had to fulfill:

- 1) Identify the existing set of technology, economics, and ideology in the society where you intend to make an intervention.
- 2) Map the existing set of social groups and classes, and the relationships of existing or potential conflict and cooperation between them.
- 3) Evaluate the most progressive social groups and classes according to their tendency to increase the organization of society as a whole.
- 4) Educate the most progressive social groups and classes so that they can consciously communicate their collective interests and evaluate potential strategies for resolving the problems presented by their natural and social environment.
  - a) Provide conceptual tools that are useful to the progressive classes.
  - b) Create art to unify their emotional life.

The role of the revolutionary socialist intellectual, according to Bogdanov, is to provide conceptual tools that serve the interests of the industrial working class. Revolutionary intellectuals would try to destroy old ideas through criticism. They would undermine fetishistic thinking—both religious and metaphysical—and strive toward unified science. They would create a shared worldview and a shared understanding of objective reality by grasping all the truths and highest forms of art discovered in the past ages and refashioning them from the labor point of view. They would identify the newly created vocabulary that emerges from technological experience of the progressive groups and

classes and mark the distinction between their class language and that of the regressive classes. They would train the people to abandon the class language of their enemies.

Bogdanov thought extensively about the role of culture in history. As a committed revolutionary socialist, he was particularly concerned about the role culture could play, and was playing, in constructing a revolutionary proletarian class consciousness. In *Art and the Working Class*, Bogdanov explained his conception and methodology of proletarian criticism. In essence, the work he did to develop proletarian science—the universal science of organization—was applied to the arts. Thus, for example, Bogdanov refers to criticism as a process of “regulation,” one of the basic mechanisms of organization theorized in *Essays in Tektology*. And of course, he explains the arts in general from the labor point of view, emphasizing the extent to which language is a tool of labor. Specifically, language is a tool for organizing experience. Extending this basic insight, Bogdanov argues that in a society divided by classes, proletarian art must be a tool for organizing the experience of the proletariat.

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<sup>1</sup> Bogdanov, *Red Star*, 202. This line is taken from a passage where Bogdanov has the protagonist Netti analyzing the historical origins of the idea of freedom: “The word ‘freedom’ was discovered. It was no better or worse than other words, but it became the banner of concerted effort, much as bits of ordinary cloth served to express the unity of combat forces in the armies of earlier times.”

<sup>2</sup> Bogdanov, *Essays*, 190.

<sup>3</sup> D’Alonzo, “Ludwig Noiré,” 47–71. In post-1950s linguistics, D’Alonzo finds that “one of the last times Noiré’s theory was mentioned was in the late 1970s,” but while new research “displaced Noiré’s theory completely,” it is also the case that “in recent years, some scholars have started employing such notions as joint attention, cooperation, shared attentional frame, tool-making, etc., to explain how language emerged during collective activities.” In other words, although Noiré’s theory was largely speculative, some modern accounts of the origins of language show that Noiré’s basic thesis that language emerges from collective labor remains plausible.

<sup>4</sup> It is not clear to me how Bogdanov first learned of Noiré’s theory. One possibility is through Ernst Mach, who (as D’Alonzo notes) mentioned Noiré, albeit critically, in his *Principles of Thermodynamics*.



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<sup>5</sup> Bogdanov, *Essays*, 190.

<sup>6</sup> Bogdanov, 190.

<sup>7</sup> Bogdanov, 186

<sup>8</sup> Bogdanov, 190

<sup>9</sup> Bogdanov, 20: “The word often preserves its organizational idea long after the splintered thought of man has already lost it.”

<sup>10</sup> It would be more common today to use the term “cultural evolution” rather than “social evolution,” but they are essentially equivalent. For Bogdanov, all that is social is fundamentally communicative. Strictly speaking, there is nothing social without communication in his philosophy. Also, given Bogdanov’s quite broad definition of labor as goal directed action, “collective labor” and “collective action” are interchangeable terms.

<sup>11</sup> D’Alonzo notes that Noire’s emphasis on the connection between thought and language comes from a skepticism toward Darwinian evolution, which became more prominent over the course of his friendship with Max Muller, who had strong anti-Darwinian views. Both men were concerned about denying the evolutionary relationship between animal signaling and human speech. Notably, this was the reason for Ernst Mach’s criticism of Noire, whom Mach believed made too strong a distinction between humans and other animals.

<sup>12</sup> Bogdanov, *Philosophy*, 16: “The transfer of *experience* among members of a commune was the beginning of ‘cognition’ proper.”

<sup>13</sup> Bogdanov, *Essays*, 190.

<sup>14</sup> Bogdanov, 190.

<sup>15</sup> Bogdanov, *Living*, 15.

<sup>16</sup> This corresponds to Muller’s view of metaphor as a corruption of language.

<sup>17</sup> Bogdanov, *Living*, 16. See also Bogdanov, *Essays*, 11, where he says that the basic metaphor is the “basic condition of man’s thought about nature.”

<sup>18</sup> Bogdanov, *Essays*, 21.

<sup>19</sup> Bogdanov, 42.

<sup>20</sup> Bogdanov, 42.

<sup>21</sup> Bogdanov, 39.

<sup>22</sup> Bogdanov, 39.

<sup>23</sup> Bogdanov, 74.

<sup>24</sup> This statement raises two questions. First, is this not a metaphysical statement, and is Bogdanov not attempting to depart from all metaphysics in his scientific endeavors? Secondly, although Bogdanov declares himself a convinced monist, the idea that joining precedes division implies that in its origin the universe is plural rather than singular. If the world began as one, then the first act would necessarily be division, would it not? Evidently Bogdanov does not think so.

<sup>25</sup> Bogdanov, 64.

<sup>26</sup> Bogdanov argues that the first case of complete harmony represents an ideal limit that is never achieved in practice.

<sup>27</sup> Bogdanov, *Essays*, 69.

<sup>28</sup> Bogdanov, 70. Bogdanov always reminds the reader that thought follows practice, and thus the practical ingressions of joining objects are followed by ingressions in thought that join mental images into ideas.

<sup>29</sup> Bogdanov, 71. These illustrations with communication media are interesting, not only because they show Bogdanov was always thinking about communication, but because they show he dreamt of creating mutual understanding on a global scale and hoped that tektology would facilitate this process.

<sup>30</sup> Bogdanov, 72.

<sup>31</sup> Bogdanov, 73.

<sup>32</sup> Bogdanov, 238.

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- <sup>33</sup> Bogdanov, 73. Friedrich Engels gives the example of boiling water in his *Dialectics of Nature*, though Bogdanov considered his dialectical philosophy to be generally lacking in its explanation of the supposed “leap” from quantitative to qualitative change.
- <sup>34</sup> Bogdanov, 74. Bogdanov discusses the impacts of climate change on animal populations as equivalent, organizationally, to the impacts of humans on those same animal populations. In either case, the animal environment selects for preservation or destruction. The only difference is the range of activities that perform this selection: in the one case temperature, in the other hunting and competition for plant foods.
- <sup>35</sup> Bogdanov, 77.
- <sup>36</sup> Bogdanov, 77. Bogdanov describes the affirmative evaluation here as “‘successful’ or ‘true,’” again indicating his pragmatic and constructivist epistemology.
- <sup>37</sup> Bogdanov, 75.
- <sup>38</sup> Bogdanov, 77–78.
- <sup>39</sup> Bogdanov, 79. In the English translation of the *Essays in Tektology*, we read “likening” and “dislikening,” but in the translation of *Book I*, we read “identification” and “disidentification.” I have chosen the latter for their significance to the terminology of contemporary rhetorical theory. Here, the connection between Burke’s terms “identification” and “consubstantiality” is quite clear in Bogdanov’s posthuman universal application of selection indiscriminately to bodies and ideas.
- <sup>40</sup> Bogdanov, 81. As Alfred North Whitehead famously said, “Life is robbery.” For more on Whitehead’s proposition and its implications, see Greg Lambert’s *Secular Theology* (Routledge, 2001).
- <sup>41</sup> Bogdanov, 81. This helps make sense of Bogdanov’s seemingly anti-ecological principle that the war between humans and nature is an eternal war of conquest, and also helps us understand Bogdanov’s view of the vampire-parasite as one who prevents the overall development of collective self-preservation.
- <sup>42</sup> Bogdanov, 84.
- <sup>43</sup> Bogdanov, 84.
- <sup>44</sup> Bogdanov, 133.
- <sup>45</sup> Bogdanov, 133.
- <sup>46</sup> Bogdanov, 135.
- <sup>47</sup> Bogdanov, 135.
- <sup>48</sup> Bogdanov, 164.
- <sup>49</sup> Bogdanov, 164. The same process would be described as “negative feedback” in terms of cybernetics, denoting the tendency to close the gap between a stable preset bias and any deviation from that bias.
- <sup>50</sup> Bogdanov, 164.
- <sup>51</sup> Bogdanov, 164.
- <sup>52</sup> Bogdanov, 164.
- <sup>53</sup> Bogdanov, 204.
- <sup>54</sup> Bogdanov, *Toward*, 51.
- <sup>55</sup> Bogdanov, 50.
- <sup>56</sup> Bogdanov, 51.
- <sup>57</sup> Bogdanov, *Essays*, 205.
- <sup>58</sup> Bogdanov, *Empiriomonism*, 362
- <sup>59</sup> Bogdanov, 363.
- <sup>60</sup> Bogdanov, 363.
- <sup>61</sup> Bogdanov, 365.
- <sup>62</sup> Bogdanov, 363.
- <sup>63</sup> Bogdanov, 364.
- <sup>64</sup> This includes various forms of ritual, which for Bogdanov should not be considered separately from labor in general even if their practical effects are, in retrospect, dubiously related to their intended effects.
- <sup>65</sup> Bogdanov, *Empiriomonism*, 364.
- <sup>66</sup> Bogdanov, 365.
- <sup>67</sup> Bogdanov, 365.

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- <sup>68</sup> See, for example, Cooren and Martine, “Communicative Constitution.”
- <sup>69</sup> Bogdanov, *Essays*, 207. See also Mao Zedong “On Contradiction” (*Selected Works*, republished on Marxists.org): “the productive forces, practice and the economic base generally play the principal and decisive role; whoever denies this is not a materialist. But it must also be admitted that in certain conditions, such aspects as the relations of production, theory and the superstructure in turn manifest themselves in the principal and decisive role.”
- <sup>70</sup> Bogdanov, 168.
- <sup>71</sup> Bogdanov, 169.
- <sup>72</sup> Bogdanov, 170.
- <sup>73</sup> Bogdanov, 170.
- <sup>74</sup> Bogdanov, 170. “During revolutionary epochs, the process of conversion of organizations with an embryonic egression, in the form of a hardly noticeable authoritarianism, into organizations of fully expressed egression, strict authoritarian discipline and ‘firm rule,’ appears quite frequently and quite vividly.” Written after the 1917 Revolution, this oblique observation may have been a criticism of Lenin’s authoritarian tendencies, which Bogdanov had criticized in the past and which he may have still resented, especially after Lenin used his authority to end the Proletkult.
- <sup>75</sup> Bogdanov, 174.
- <sup>76</sup> Bogdanov, 13.
- <sup>77</sup> Bogdanov, 13.
- <sup>78</sup> Bogdanov, 14.
- <sup>79</sup> Bogdanov, 49.
- <sup>80</sup> Bogdanov, 49.
- <sup>81</sup> Bogdanov, 13. One might extend this line of thinking to the Protestant reformation in which individuals are conceptualized as having a more direct relationship with God instead of being connected through a bureaucratic line of middle managers, so to speak. In fact, some research shows that people who believe they have a personal relationship with God are more likely to start businesses. This is not surprising if a personal relationship to God suggests that one is part of the upper management of life here on Earth. See <https://hbr.org/2013/10/entrepreneurs-feel-closer-to-god-than-the-rest-of-us-do>
- <sup>82</sup> Bogdanov, *Toward*, 87.
- <sup>83</sup> Bogdanov, *Toward*, 87.
- <sup>84</sup> Bogdanov, *Essays*, 91.
- <sup>85</sup> Bogdanov, 91.
- <sup>86</sup> Bogdanov, 261.
- <sup>87</sup> Bogdanov, 261.
- <sup>88</sup> Bogdanov, 201.
- <sup>89</sup> Bogdanov, 178.
- <sup>90</sup> Bogdanov, 178.
- <sup>91</sup> Bogdanov, 101.
- <sup>92</sup> Bogdanov, *Toward*, 97.
- <sup>93</sup> Bogdanov, *Short Course*, 73.
- <sup>94</sup> Bogdanov, *Essays*, 14.
- <sup>95</sup> Bogdanov, 14.
- <sup>96</sup> Bogdanov, 138.
- <sup>97</sup> Bogdanov, 138.
- <sup>98</sup> Bogdanov, *Short Course*, 71.
- <sup>99</sup> Bogdanov, *Essays*, 138.
- <sup>100</sup> Bogdanov, 138.
- <sup>101</sup> Bogdanov, *Essays*, 182.
- <sup>102</sup> Bogdanov, *Empiriomonism*, 365.

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- <sup>103</sup> Bogdanov, *Essays*, 15. This latter contention, that to borrow from alien gods would violate the religious point of view, seems to be partially contradicted by the culture of Rome, which adopted several Greek gods as their own.
- <sup>104</sup> Bogdanov, 15.
- <sup>105</sup> Bogdanov, *Short Course*, 100. Bogdanov explains that the exploitation of the slave class created more opportunities for consumption among the aristocracy and the demos, the patricians and plebeians, and so free citizens had more opportunities for “mental exercise,” resulting in tremendous progress in philosophy and science. He attributes the philosophy of atomism in ancient Greece to this development of individualism in socio-economic life. On the other hand, he also argues that widespread reliance on slavery led to intellectual degradation over time due to the separation of the ruling classes from technical life. He points out that Plato, for instance, considered it an insult to geometry to apply it to the mechanical arts and says that Plato’s idealism arises from the decadence of Greek society in his lifetime.
- <sup>106</sup> Bogdanov, 138.
- <sup>107</sup> Bogdanov, 161.
- <sup>108</sup> Bogdanov, 373.
- <sup>109</sup> Bogdanov, 374.
- <sup>110</sup> Bogdanov, *Art*, 45.
- <sup>111</sup> Bogdanov, 45. Are there any movies more popular in contemporary life than the blockbuster superhero films that are remade repeatedly, and which depict beings of qualitatively superior strength and intelligence on the model of an authoritarian organizer?
- <sup>112</sup> Bogdanov, *Empiriomonism*, 365
- <sup>113</sup> Bogdanov, *Essays*, 18.
- <sup>114</sup> Bogdanov, 18.
- <sup>115</sup> Bogdanov, 18.
- <sup>116</sup> Bogdanov, *Empiriomonism*, 365.
- <sup>117</sup> Bogdanov, *Essays*, 16.
- <sup>118</sup> Bogdanov, 17.
- <sup>119</sup> Bogdanov, 17.
- <sup>120</sup> Bogdanov, 17.
- <sup>121</sup> Bogdanov, 17.
- <sup>122</sup> Bogdanov, *Toward*, 151.
- <sup>123</sup> Bogdanov, *Empiriomonism*, 367.
- <sup>124</sup> Bogdanov, *Essays*, 33
- <sup>125</sup> Bogdanov, *Essays*, 33.
- <sup>126</sup> Bogdanov, *Short Course*, 375.
- <sup>127</sup> Bogdanov, 376.
- <sup>128</sup> Bogdanov, *Toward*, 99.
- <sup>129</sup> Bogdanov, *Essays*, 141. As Bogdanov points out, the solution to this problem is “frequently advanced by novelists.” This gives a sense of his appreciation for art as equipment for living.
- <sup>130</sup> Bogdanov, 142.
- <sup>131</sup> Bogdanov, *Short Course*, 376.

## CHAPTER IV

### SCIENTIFIC SOCIALIST FICTION

Bogdanov wrote two major science fiction novels in his lifetime which functioned, though envisioning socialist utopias, as rhetorical interventions. *Engineer Menni*, for instance, was written five years after *Red Star*, when it was clear the 1905 Revolution had been decisively defeated and all the old “skeletons” had reared their ugly heads with a renewed vigor.<sup>1</sup> As Leonid (speaking for Bogdanov) makes clear in the translator’s foreword, *Engineer Menni* is intended as a pedagogical text designed to confront and overcome these skeletons. It is explicitly conceived as an intervention in early twentieth-century Russian culture, which was at the time a tremendously complex culture of social groups and classes in transition. Russia was a nation of peasants slowly becoming proletarianized urban workers, of talented middle-class boys rising into the ranks of the low aristocracy, of middle-class girls struggling against the constraints of patriarchal oppression, of aristocrats and feudal lords becoming private bourgeois businessmen or state capitalist ministers, of radical intellectuals operating underground and in émigré communities abroad. There was a strange confluence of orthodox Christianity and peasant tradition, modern science, mysticism, and the occult. Cleaning out the closet was no small task, when even the most advanced sections of the socialist party workers and intellectuals had not smashed all the skeletons of the old culture. Bogdanov was determined to grasp all that was good in cultures of the past and smash

the rest. Both *Red Star* and *Engineer Menni* outlined models for that plan through science fiction.

Of the two novels, *Red Star* has received the most literary attention. Neither the pre-revolutionary Russian audience nor post-revolutionary Soviet audience was as enthusiastic about the long march depicted in *Engineer Menni* as they had been about the futuristic dream of *Red Star*. Likewise, by comparison to *Red Star*, Bogdanov's prequel to the Martian utopia in *Engineer Menni* has received little attention or interest among scholars. Where *Engineer Menni* is discussed, it is done side by side with *Red Star* or only in passing. Hilary Rose has argued that "*Red Star* and *Engineer Menni* offer a science fiction utopia which is surprisingly close to contemporary feminist and ecological writing in its complexity and its lack of political and theoretical closure."<sup>2</sup> Yet in her textual analysis, Rose discusses only the progressive gender relations in the utopian world of *Red Star* and not the road to utopia pictured in the prequel. Douglas Greenfield gives a two-page précis of *Engineer Menni* in his article on Bogdanov's science fiction novels and correctly identifies the figures of the vampire and the engineer as the driving conceptual forces of the novel; however, he neglects to mention the equally essential conflict between bourgeois and proletarian engineers and their relationship to Bogdanov's organizational point of view.<sup>3</sup>

For some, this passing treatment is entirely justified. As Mark Adams observes, the original English translator of *Red Star* thought that *Engineer Menni* is "inferior to it [*Red Star*] in every respect," and both Richard Stites (who wrote the introduction to the

new edition) and Loren Graham (who wrote the afterward) appear to agree with this assessment.<sup>4</sup> However, Adams is correct to say that *Engineer Menni* has a “different and equally important purpose: to chronicle the historical development of Martian socialism.”<sup>5</sup> He is also right to observe that the analogy between Mars and Earth is imperfect, a fact that Bogdanov explains in some detail in the forward. However, Adams overstates the difference between Bogdanov’s analysis of the situation on Earth in 1913 and on Mars during the period of *Engineer Menni* by characterizing it as a fundamental incomparability. While the two planets are far from identical, Bogdanov clearly asserts that they are “analogous”<sup>6</sup> insofar as each is representative of the same “epoch.” Following this analogy, though, we find that each of the two planets is wrestling with the same essential contradiction between authoritarianism and anarchy that Bogdanov theorized in several of his previous and subsequent works. *Engineer Menni* provides our best look at Bogdanov’s vision of proletarian culture as a revolutionary force for socialist transition. Here we see Bogdanov’s dramatic conception of the revolutionary role for his systems theoretical paradigm, tektology, which he considered his greatest achievement. And it is here, in the struggle for utopia, we find Bogdanov grappling with the compromises and challenges that would face a protracted struggle for socialism in even the best possible circumstances.

In this chapter, I will provide an overview of the narrative of *Engineer Menni* to familiarize the reader with the broader points of the plot, and then peel back the layers of Bogdanov’s theoretical drama. I will conclude with reflections on *Red Star* as the

communism of communication, a utopia of complete harmony and deep mutual understanding that results from the violent but necessary conflicts of miscommunication in the epoch that preceded it.

### **The Art of Cultural Revolution: Alexander Bogdanov's *Engineer Menni***

The introduction to *Engineer Menni* is presented as a translator's foreword. But it is not the translation from Russian into English; rather, it is Leonid's translation of *Engineer Menni* from *Martian* into Russian. Leonid explains that he has accepted a new mission on behalf of his Martian comrades in the Colonial Group. They have formed a "special unit for the dissemination of the New Culture on Earth" and have tasked Leonid with making this distinctive contribution to the effort.<sup>7</sup> The first book they have chosen to translate for their Earthling (specifically Russian) audience is *Engineer Menni*, an historical novel by Enno, one of Leonid's comrades, friends, and lovers from his first voyage to Mars.

The New Culture group selected *Engineer Menni* for its content. The narrative told in *Engineer Menni* belongs to a period of Martian history that the New Culture group believed to be roughly equivalent to the contemporary epoch on Earth, so they believed it provided the road map for a transition between capitalism and communism. In contrast to *Red Star*, which tells the story of a fully realized communist society, *Engineer Menni* details the final battles between these competing systems. As Leonid explained previously in *Red Star* (and now in more detail for his translator's foreword), Martian social history followed the same basic line of development as on Earth,



proceeding first from tribal societies through to a feudal era and then to capitalist nation-states. However, development on Mars was far more peaceful than it had been on Earth. This trend continued throughout the transition to socialism. Thus, the reader is warned that the path followed on Mars cannot be taken whole cloth and applied to the situation of Earth. Still, we can expect to find more immediate parallels to the living experience of contemporary Russian socialists than we did in the distant future of *Red Star*. Rather than peace, cooperation, and equilibrium, in *Engineer Menni* we find corruption, crisis, and bitter struggle.

Bogdanov's fictional alter-ego, Leonid, had no illusions about the difficulty of the task before him. Even though Leonid shared the Martians' socialist ideal, the culture shock that he experienced on his voyage to the red planet had resulted in delirious fever dreams and a violent outburst that jeopardized his "cherished cause of bringing our two worlds together."<sup>8</sup> He could not now have been ignorant about the dangers of his mission as a cultural ambassador. On the other hand, *Engineer Menni* was selected precisely because that text represents a period of Martian history he considered analogous to early twentieth-century Earth.

Leonid describes the challenge of translating a Martian text into the contemporary Russian language as a problem of disparate cultural levels, comparable to translating a modern scientific text into the language of "Homer" or "Old Church Slavonic."<sup>9</sup> What words can be used to describe modern inventions that were never contemplated by the ancients? In some cases, the problem is multiplied by the fact that

commonly understood ideas may be merely insinuated in a Martian text while they are passed over in ignorance by readers from the lower culture. Then there is the problem posed by words whose meaning have undergone a dramatic change. As Leonid puts it, “even when the words seem to be exactly the same the thought they convey is sometimes totally different. In fact, the greatest difficulty an idea encounters on its way to acceptance is more often that of translation into ordinary language.”<sup>10</sup> And if the translator manages to overcome these challenges, there is still the general problem of confronting something radically new. Like our instinctive fear of the dark, we fear the unintelligible as “monstrous,” much as “devout Catholics of the Middle Ages reacted to atheism or as an old-fashioned petty bourgeois might have reacted to free love.”<sup>11</sup> Our vastly different experience presents us with radically distinct descriptions of the world, and this chasm between our world-descriptions brings chaos to our moral universe. Leonid’s description of this monstrous unintelligibility prepares the reader to open their mind to the New Culture and consider it carefully rather than rejecting it out of hand. To borrow a contemporary turn of phrase, Bogdanov/Leonid prepares the reader to lean into the discomfort.

### *Cast of Characters*

Bogdanov introduces all the main characters in the foreword and prologue, giving a sense of their backgrounds, class position, interests, attitudes, and ambitions. The prologue is divided into two sections: Menni and Nella. This structure might lead the reader to believe that Menni and Nella are the two protagonists of *Engineer Menni*,

but as we will see, Nella plays a minor role in the narrative. Nella features prominently in the prologue because she provides an essential symbolic ingredient for the synthesis of love and logic that produces her son Netti, who is the ultimate hero of this story.

The first character we meet is the engineer Menni Aldo, the central protagonist and namesake of the novel. Menni was born into an aristocratic dynasty. His grandfather, Duke Aldo, was the last of the independent feudal lords to be defeated and incorporated into the Federal Republic. His father, Ormen Aldo, had staged an unsuccessful uprising in an attempt to reclaim their land, but he too was defeated. Menni was taken from his family and moved to the capital where he “grew up among strangers and received a republican education.”<sup>12</sup> In adulthood he became an engineer, and after traveling extensively throughout the Martian deserts, he developed a grandiose plan to transform the Martian landscape and restore all the ancient seas. As the first step of this mission, he wrote “his remarkable book *The Future of the Libyan Desert*,” setting out the technical and financial requirements for connecting the desert to the Mare Australe Sea. His project in Libya would regenerate the climate, feed millions of people with the produce from new agricultural lands, and provide access to new mineral deposits that would facilitate the growth of industry for decades to come.<sup>13</sup>

Menni is Bogdanov’s archetype of the heroic bourgeois scientist. As Bogdanov argues in *Art and the Working Class*, to “defeat the old world, it is more useful to understand it as being made up of its best representatives in their highest manifestations than to imagine that it is made up of only evil people with bad motives.”<sup>14</sup> *Engineer*

*Menni* is not without its share of villains and scoundrels, but *Menni* represents the immense creative power of the capitalist epoch. Whatever complaints are made about *Menni*'s ideas or choices throughout the book, the reader is always encouraged to see him as deserving our respect. *Menni*'s rivals recognize him as an extremely ambitious individual. To Nella he is a "warrior" with a "will of iron" and "thoughts of steel," but he is also prideful, and "his heart is of ice."<sup>15</sup> Above all, *Menni* is committed to the cold hard facts. This is demonstrated by his respect for the "the renowned Xarma, who despite his socialist views is the most learned and profound economist of our time."<sup>16</sup> *Menni* is proud of his ability to look past Xarma's socialist politics (Xarma being an obvious stand-in for Karl Marx) and appreciate the objective truth of his discoveries in the field of economic science. Indeed, he uses the scientific predictions of Xarma to motivate the banking and cartel trusts to fund his project, arguing that a new industrial crisis is inevitable in the absence of rapidly expanding markets, which "The Project" will provide. Likewise, *Menni* is committed to providing high wages and good working conditions—not out of a sense of moral duty or political commitments but because it is a technical necessity for a well-run enterprise.

The next characters Bogdanov introduces are executives of the large capitalist trusts and banking cartels. There is Feli Rao, the "president of the Railroad Credit, the largest Martian banking cartel," and Maro, who is both a fellow engineer and an

executive of the Dynamite and Powder Trust.<sup>iii</sup> Feli Rao is the first to present challenges to Menni's project, questioning Menni's ability to lead the project administration, while Maro tactfully reframes the debate to give Menni "an indisputable victory."<sup>17</sup>

Nonetheless, both characters are presented as untrustworthy. Feli Rao is immediately labeled as a member of "the opposition," but Maro's attitudes are concealed. In a private conversation, Maro explains to Rao that his confidence in Menni's administrative abilities is rooted in Menni's aristocratic heritage: "An enigmatic smile flitted across Maro's face. 'Administrative talents? How can you doubt them? Isn't he the son of Duke Orman Aldo?'" Sizing Maro up, Rao concludes that "you and I will come to an understanding in due course."<sup>18</sup> The tenor of this private conversation suggests that Rao and Maro, although they have judged this situation differently, have essentially aligned class interests and now form a political bloc.

Finally, we meet Nella, Arri, and Netti, the characters who represent the best of the Martian working class. Arri was born in a mud hut and raised in the tumbleweed Libyan settlement town of Ichthyopolis. As suggested by its name, Ichthyopolis was a fishing town.<sup>iv</sup> Arri's father was an old fisherman who piloted his schooner along the

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<sup>iii</sup> Bogdanov, *Engineer*, 156. Given the essential role that Russian rail workers had recently played in the 1905 Revolution, Bogdanov's intended audience would have been naturally suspicious of Feli Rao as the president of the Railroad Credit.

<sup>iv</sup> Bogdanov's fisherman lives in fish (ichthy) city (polis). Bogdanov learned Latin as a schoolboy at the Tula Gymnasium, and he remembered it well, likely for its utility in understanding scientific names in his university-level biology courses. Bogdanov also had an appreciation for philology, and he believed that word origins were tied to labor practices. It makes sense, then, for a town to be named after its characteristic form of labor.

banks of the Nepenthes Canal. In stark contrast to this rural existence, Nella's early childhood was spent in the capital. Her father had been a skilled machine worker earning a good salary, and he had "spared nothing to give his daughter a good upbringing."<sup>19</sup> But Nella was struck by bad fortune. Her father was killed in an industrial accident, her mother died of illness, and all of a sudden she was left orphaned in the big city. She was only twelve years old when she was sent on her way to live with a distant uncle, "a minor official" whom she had never met, living in a faraway capital she had never visited. When Arri and his father met Nella, she struck them as "almost an upper-class young lady,"<sup>20</sup> and yet she had reached the bottom of her luck. On the voyage to her new home she had been shipwrecked, and it was they who carried her and the other survivors to safety. Having no attachment to her uncle and feeling grateful for her saviors, Nella asked to stay with Arri and his father. They agreed, and she lived happily in their home as a part of the family for the next five years. Arri and Nella grew up together. Nella loved Arri like a brother, but Arri's love for Nella was romantic. When he confessed his feelings and she did not return them, Arri decided to leave Ichthyopolis while Nella stayed behind.

When Menni's Libyan Project was approved by the central government, he visited Ichthyopolis for work. There, he met Nella. On his way into town, Menni would pass her hut and hear her singing songs she had written. When Nella saw him, she knew immediately who he was. Even in Ichthyopolis, she had access to the newspaper and had gotten a copy of Menni's book from the local library. They built rapport from a distance.

Eventually he came to visit: “When the passion of their caresses had ebbed, she told him all about her love for him.”<sup>21</sup> In response, he asked for her forgiveness. He could not stay in Ichthyopolis; she could not come away with him. Even more problematic, Menni insisted that he could not form a relationship with anyone: “To overcome everything and be stopped by nothing I must be absolutely free, totally invulnerable...Nella! Only he who is alone is invulnerable in battle.” Nella told him that no forgiveness was needed: “I knew, of course, that it would be like this.”<sup>22</sup>

Menni never returned to Ichthyopolis, but the end of Menni’s night with Nella was the beginning for our final main character, Netti, their son.<sup>v</sup> Foreshadowing Netti’s role in the story, Nella sings a song that paints a vivid picture of her unborn child:

I know by the strain of your thrust to be free,  
That the fruit of my womb is a boy.  
A warrior is what you are destined to be,  
My genius unseen, my one joy!

Like your father a warrior, mighty and bold  
To the warrior’s call you’ll stand true  
But the chill in his heart and the pride in his soul  
Will never be known unto you.<sup>23</sup>

As a synthesis drawing together the best parts of his parentage, Netti will be a warrior and a genius like his father, but he will have the warm heart and humility of his mother.<sup>vi</sup>

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<sup>v</sup> The name Netti clearly suggests a synthesis of Menni and Nella.

<sup>vi</sup> Clearly Nella’s views on gender belong to the pre-socialist world, before men and women have had the time to develop in conditions of radical equality as is the case in the future society described by *Red Star*.

Bringing the prologue to a close, Arri returned home one last time, “dressed like a worker from the capital.” Nella asked him to “take me away from here,” so they sold the family house, boarded a ship, and set off for Centropolis, where Arri would help raise Netti as his own son.

### *Part I*

#### **The Great Project**

At the height of his popularity and prestige, engineer Menni revealed the full extent of his ambitions in his “Plan of the Great Project.” He had already proven his abilities as an engineer and administrator by transforming a lonely Martian desert into a land of babbling brooks and bustling commerce: “The elements had been dealt a tremendous blow, and it began to seem as though man could accomplish anything he set his will to.”<sup>vii</sup> Now Menni set out to transform the entire planet. Over the next century, Menni planned to build a system of canals and artificial irrigation extending to the farthest reaches of the Martian landscape, until every desert had been conquered by Martian society. Analyzing the range of political forces in the Martian republic, Menni coalesced “a powerful social movement attracting the support of various classes,” uniting the proletariat, the petty-bourgeoisie, and the capitalists against the landlords.<sup>24</sup>

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<sup>vii</sup> Bogdanov, 164. A note on gendered language: in Bogdanov’s utopian society of *Red Star*, the Martians have abolished gendered language in the process of overthrowing the oppression of women. Thus, we can either interpret the persistence of gendered language in *Engineer Menni* as Bogdanov’s attempt to create a plausible analogy with the present-day Russia of the time, in which gendered language was and is the norm; or as the unthinking persistence of gendered language in Bogdanov’s own thought, despite his attempts to live the new proletarian culture in the present.



Feli Rao ensured that the project was sufficiently backed by finance capital from the big banks, and Maro left his former position at the Dynamite Trust to become Menni's chief lieutenant. Menni would organize every aspect of the project—financial, administrative, and technical—with “almost dictatorial control.”<sup>25</sup> And so the Great Project began.

### **Dark Clouds**

The first challenge Menni faced in managing the Great Project was to maintain a good relationship with the workers throughout the process of labor negotiations. Menni's approach to labor was to pay a high enough wage to keep workers well fed, well rested, and thus well prepared for the next day of work. However, when the labor union leadership approached Menni with a proposal to negotiate the terms of their agreement, they were shocked when he refused to even discuss their proposal. The labor leaders reported back to their locals and there was uproar. The problem was only amplified by the press, which painted him the project “dictator.”<sup>26</sup>

Menni's publicity problem was amplified when a “racy” agitational pamphlet was circulated among the masses of disgruntled workers. The anonymous author accused Menni of needlessly endangering the workers. The canal project had reached a dangerous region of Mars, and Menni had predicted that tens of thousands of workers would die as a result of disease. The only alternative path would take the canal over a fault line. Menni faced a choice: either tens of thousands would die constructing the canal, or millions would die later when an earthquake destroyed this essential infrastructure. The pamphlet dismissed Menni's analysis of the earthquake risk as

“obviously unfounded” and accused him of “wanting to exterminate the workers, whose unions he loathes so fiercely.”<sup>27</sup> The battle lines were drawn, and over half a million workers went on strike.

Back in the capital, the Prime Minister explained that Menni’s strategy for improving labor conditions by an act of Parliament was being undermined by Feli Rao, who had bribed at least fifty representatives and swung the majority in his favor. Worse, the Prime Minister suspected that the author of the anonymous pamphlet was Maro, Menni’s chief lieutenant on the Great Project.

### **The Showdown**

At an encounter with Maro, Menni pressed him for details about a secret meeting with the labor leadership only a week before the strike. Discovering a contradiction in Maro’s narrative, Menni had heard enough to know he was being deceived: “It is useless to continue this comedy. We are alone here. What does the Council of Syndicates—or rather Feli Rao—want?”<sup>28</sup> Maro assessed his situation and decided to speak frankly, explaining that “The Council of Syndicates wants to take over the administrative and financial end of the Project.” If Menni agreed, there was a detailed plan to restore his public reputation and give him complete technical control over the plan. If he refused, they promised to stoke more outrage among the workers and eventually convene a panel justifying a change in the canal’s course.

Menni was full of “contempt,” disgusted by Maro’s willingness to “commit a crime in the eyes of science and mankind for the sake of...the budget.”<sup>29</sup> Maro sneered

and cynically retorted that “everything will be quite legal.” Menni moved quickly now, reaching for a knife on the desk between them and driving it through Maro’s “carotid artery.” Death was almost instantaneous.<sup>viii</sup>

### **The Trial**

If Menni was convicted of murder it would mean fifteen years of solitary confinement, the harshest penalty issuable by the Martian courts. Before the trial, all of the media had conspired against him; during the trial, the Prime Minister and Arri had been prevented from testifying. Still, there was no evidence against him, and it seemed likely he would not be convicted. But Menni did not sit in silence and hope for acquittal. Instead, when it came time to determine the degree of the murder, Menni told the judges that “I protest emphatically against the assumption that my act was unpremeditated. On the contrary, it was deliberate and carefully considered.”<sup>30</sup> He declared that the “real crime” was going unpunished and that killing Maro was a “just act.” After the trial, as he walked “serenely” from the courthouse steps to the prison van, he looked out at the crowd:

A sonorous female voice called out in the midst of the silence:  
‘Son, take a good look at a hero! Never forget him!’  
A memory flashed deep in Menni’s soul:  
Nella!<sup>31</sup>

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<sup>viii</sup> Bogdanov, 177. Menni’s ability to kill Maro is explained by his being a “descendent of ancient knights.” What should we make of this explanation by heredity, given Bogdanov’s intention to produce a work of proletarian culture?

## *Part II*

### **Netti**

Meeting “clandestinely” in a working-class tavern, the Council of the Great Project Federation gathered to determine what was to be done. Feli Rao’s hostile takeover of the Great Project had not been a coup for the workers—whose general strike was ruthlessly crushed, whose unions had been driven underground, whose wages had been slashed, and who had been treated “like serfs” by the contractors and engineers for the past twelve years. Arri, now an “elder” among the union representatives, rose and asked the assembled workers to “allow my son Netti to present a report.” Netti had gone to school and become an engineer, but as Arri explained, “if to complete his education he attended the same school as our enemies, he did so in order to find new weapons for the defense of our cause.”<sup>ix</sup>

Netti’s research into the Great Project over the past decade had turned up a story of “flagrant blunders, unparalleled dishonesty, unprecedented thievery and embezzlement.”<sup>32</sup> He had the evidence and he had a plan. First, the workers should demand a stop to the thievery and criminal trials for all those involved in waste, fraud, and abuse. Second, the workers should demand that Menni resume leadership of the financial, administrative, and technical control of the project.

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<sup>ix</sup> Bogdanov, 180. The theme of knowledge as a “weapon” is common in Bogdanov’s theoretical and literary works, although he did warn against viewing all of proletarian culture as a militant struggle. See *Art and the Working Class*, 115.

The demand to reinstate Menni met with great resistance among the workers, for they still believed Menni was their mortal enemy. Netti, however, came to his defense. True, Menni was an enemy of the unions, but “his enmity was ideological and based on principle.”<sup>33</sup> He had been honest and transparent in his negotiations. True, Menni’s project plans had sent tens of thousands of workers to die in the Rotten Bogs, but it was his love for humanity and not hatred for the workers that had made his decision. As Netti implored, “we seldom have the opportunity to choose our enemies, but when it is possible we must learn to distinguish between them.”<sup>34</sup>

A young worker rose to address the congress with a weary lament. He believed Netti’s analysis and agreed that his program charted the correct path forward, but at the same time he disdained the “slavery” of belief. In his speech, he declaims:

Isn’t this slavery, the worst form of slavery? Netti, Arri, brothers: how do we escape from this? What must we do so that we ourselves can *know and see*, and not just constantly believe? Or is that impossible? Is it always going to be like it is now? And if it is impossible, then what is the use of living and struggling if we are to remain slaves?<sup>35</sup>

It was a “sore spot”<sup>36</sup> that Netti knew all too well. He did not shy away from responding. “Thus far science is the weapon of our enemies. We will triumph when we have made it our weapon.”<sup>37</sup>

### **The Return**

Menni regained leadership of the Great Project at the behest of the workers movement, and Netti’s disclosures were published simultaneously with the manifesto of the Project Federatio. Demonstrations were held and the workers levied the threat of a

general strike. The Parliament was dissolved, and an investigation of crimes commenced. Feli Rao refused to surrender; instead he “put a bullet in his brain.”<sup>38</sup> Menni refused to accept a pardon or a new trial and insisted on running the project from his prison cell.

### **Father!**

Menni set to work crafting a new project administration team from the ground up, and he selected Netti to be an inspector of the Central Project Administration. He had called upon Netti to explain his methods of rooting out corruption, but he was even more impressed when Netti demonstrated considerable expertise in the technical problems of the Project system. Netti even proposed “a number of radical changes” to Menni’s plans, which unbeknownst to him, Menni had already introduced as revisions. It seemed that “the two men understood each other intuitively,” and Menni became convinced they had met before.

“Strange! You remind me very much of someone. But who? Perhaps I have met your parents?”

“I don’t think so...Anyways, I have never known my father personally, and no one has even wanted to tell me who he was. He was a rich man in a high position. He abandoned my mother, not even suspecting that I existed. She is a simple working woman from Libya. Her name is Nella.”

“Nella!”<sup>39</sup>

### *Part III*

#### **Two Kinds of Logic**

When Netti’s work as an inspector was concluded and the project administration adequately reformed, Menni offered him a new position as a special agent to the Chief

Inspector, and they began to negotiate terms. Their businesslike relationship had not been altered by the discovery of their kinship, though they generally steered clear of areas where they expected an ideological disagreement would arise. They were perfectly in agreement on all technical and financial matters, but not the administration. And here we find the key revolutionary turn in the novel.

Netti, unlike his father, was a socialist; he would not accept Menni's stand against the unions. To Menni, the project had no obligation to the workers. Furthermore, Menni argued that so long as the unions constituted a minority of workers, they could not be considered the legitimate representatives of all the workers. But Netti rejected the entire idea of obligation as an outdated moral term. For Netti, "'obligation' is an entirely inappropriate word where convictions are concerned."<sup>40</sup> A conviction should be about what is universally true for everyone and pursued for the common good. Thus Netti argued, contrary to Menni, that a worker "who is not conscious of his indissoluble bond with those like him or his place in the system of labor and in the society is to my way of thinking not really a worker," and thus "is not a member or a representative of his class, even if he and the likes of him constitute the overwhelming majority of workers."<sup>41</sup>

Menni and Netti thus stand as representative figures in revolutionary history: Menni, the end of capitalist authoritarianism and Netti, of socialist comradeship. They thus belonged to two different cultures with two different logics, corresponding to two different "epochs." For Menni, there was no "logical connection between the unity of labor and...the unions." For Netti, there was nothing clearer than "the logic of

consciousness that spires to transform life into a harmonious whole.”<sup>42</sup> With no clear path to resolving this fundamental difference between them, they finally agreed that Netti would accept technical responsibilities for the Great Project but leave the administration of labor relations to someone else.

### **Arri**

A tragic tension between father and son began to develop. Arri and Nella grew increasingly fearful about Netti’s future. Netti always reported back his conversations with Menni so his parents would know how much the pair had grown to respect one another. Yet they were equally convinced that “Menni and Netti are natural enemies,” and sooner or later life would force them into violent conflict. “All the forces of the past, both the best and the worst, will rally around Menni, and the newborn forces of the future will close ranks around Netti.”<sup>43</sup> Arri worried that Netti was bound to lose, and so he proposed a truly desperate strategy. “I think that there is a force that can conquer Menni, deflect him from his path. That force is love.” Nella was shocked by the implication: “I don’t know if it is possible, but it is humiliating, Arri!”

Meanwhile, Menni was thinking of Nella of his own accord. In the leadup to Netti’s departure for an inspection tour, Menni was unusually aware of sentimental feelings. He would miss Netti while he was gone, and in imagining him, he was again and again reminded that Netti and Nella shared the same “radiant eyes.” On Netti’s way out the door, he asked for a picture of Nella, which Netti promptly produced. “Menni looked with amazement at the picture.”<sup>44</sup> Netti told him to keep it.



## Deeper and Deeper

When Netti returned from his inspection tour, he joined Menni to discuss what he had seen, waxing poetic on the ceremonial opening of a new canal. Their previous conversation about the “logic of consciousness” had not only drawn out their differences; it had also formed a new habit of carrying on conversations beyond the limit of technical necessity to the deeper philosophical questions. Thus, when Netti described the canal as a “triumph for the united efforts of all mankind, for all-conquering labor!” Menni mused that “where I find it self-evident to speak of the triumph of an *idea*, you see the triumph of *labor*.”<sup>45</sup>

To Menni’s surprise, Netti was not interested in disputing that the canal was the triumph of an idea. Rather, Netti explained that the victory of an idea and the victory of labor amount to “the same thing,” and that this identity can be easily understood from “an analysis based on life.”<sup>46</sup> And so they discussed the meaning of ideas, of truth and error, of the theoretical and applied sciences, of dreams and utopias, and of freedom and justice. By the end they were forced to conclude, once again, that there was little hope of resolving their differences. Through the “dark veil” of Netti’s “alien logic,” Menni saw “a gleam of a distant truth” that was just beyond his reach. But more palpably, he felt horror and hostility at the idea that Netti would “replace rigorous scientific thought” with a mere “poetry of labor.”<sup>47</sup>

## **Enemies and Allies**

The primary enemies of the Great Project had been defeated, but many more remained. Meanwhile, Menni's allies were shifting their footing. The Prime Minister and the democratic press had wavered in their support for Menni's leadership. The Prime Minister was dissatisfied with the turmoil caused by Menni's investigations into Feli Rao's corruption, which had turned up a huge number of conspirators, collaborators, and beneficiaries, big and small. The punishment for their crimes had rippled outward to affect the everyday life and general attitude of middle- and upper-class society. The Prime Minister called for a halt to the investigations, trials, and expropriations, arguing that it was time to "forgive and forget"<sup>48</sup> in order to restore social peace. In the press, the democratic journalist Teo, once a vocal supporter of Menni, now insisted that his dictatorial powers had gone too far; they had been granted democratically by the people, but the people had made a mistake. Feli Rao's dictatorship over the project had proven disastrous, and democracy could not afford this risk any longer. Teo wrote that "democracy must never rely on a single individual; it does not have the right to do so, for it is based on the principle of the majority."<sup>49</sup> In the relationship between Menni and Netti, the democrats saw an unholy alliance.

In response to the new threats from old allies, Menni and Netti prepared a plan. Menni would present a report on the ongoing corruption in the Great Project. Only half of the misappropriated funds had been recovered; worse, there had been countless attempts to escape justice by new frauds and evasions. Netti began organizing a workers'

party. It was time to push beyond economic demands and social-movement agitation and to form a revolutionary political bloc that aimed to govern society in the interests of the proletariat. Menni would have no hand in the workers' party, but he did experience a momentary sympathy for Netti's cause before his conscience recoiled.

### **3.5. The Legend of the Vampires**

Reflecting on their new situation, Menni expressed frustration and disbelief at the "treachery" and "hypocrisy" of the once "incorruptible" Teo and the Prime Minister.<sup>50</sup> To Netti, the situation was sad but no cause for surprise. Netti did not even consider them hypocrites, insisting that these incorruptible men had held firmly to their principles: Teo was the defender of democracy, and the Prime Minister was the protector of social peace. Indeed, they held too tightly to their principles, which had outlived their usefulness for life. As Netti reflected,

Formerly they reasoned with the logic of living people. They wanted life to move ahead and improve, and this led them to their earlier conclusions. Today, however, theirs is the logic of dead men. They want peace and immobility, they want life around them to come to a standstill. What has happened to them constantly happens to people and to entire classes, to ideas and to institutions: they have quite simply died and become vampires.<sup>51</sup>

To Menni, the "legend of the vampires" was nothing but an "absurd fairy tale" or at best, "poetic imagery" and "agitational rhetoric," but Netti understood that, although "the means by which folk poetry expresses the truth differ from those of the exact sciences," folk wisdom can be equally profound. He told Menni that as a child he "was very fond

of fairy tales about heroes who fought with terrible monsters,” and Menni understood that Netti was destined to become a “vampire killer.”<sup>52</sup>

### **The Vampire**

Even as the struggle with their enemies continued, Menni began to withdraw, obsessively contemplating the legend of the vampire until finally the Vampire visited him in a dream. Inspired with malevolence and cynicism, the Vampire told a story of how Menni had changed. When he was helpless and on his own it was the unions, his old enemies, who had restored his position of power. In his prison cell, Menni spent hours looking at a picture of Nella rather than working. And it was Netti, who would trade “rigorous science” for “poetry of labor,” who now held the reins of his Great Project. The Vampire drove his point home with a final appeal: “Everything dies: you, mankind, the world. Everything will be submerged in eternity. Only the truth will remain, because it alone is eternal. And it is eternal because it is immutable. Prove that you belong to the truth and eternity: be as unchanging as they!” But Menni was not persuaded. “I know the road I have traveled. Each step was a blow to the past. And you dream of making me an enemy of the future! I know my path.”<sup>53</sup>

### *Part IV*

### **The Heart of Nella**

Menni called for an old friend to visit him, a chemist who had accompanied him on his earliest journeys into the desert. When they parted, the chemist could be seen crying. “Two hours later a sealed parcel addressed to Menni arrived from the chemist’s

laboratory.”<sup>54</sup> Menni spent the rest of the day getting his papers in order. When Netti arrived for their usual meeting, Menni told him that he would be taking a vacation for at least a month, perhaps longer, and that he would like Netti to take his place during his absence. Netti agreed, but he sensed that something was wrong. When he related the day’s meeting to his mother, Nella, “she turned very pale” and decided that she would go and see him immediately.<sup>55</sup>

### **The Faces of Death**

Menni fell asleep in Nella’s arms, and he dreamt that he saw the two faces of death. The first face of death was “repulsive and empty,” the “face of a corpse” in rapid decay, its sinking flesh falling away to reveal “a bony mask with its stereotyped grin.” The corpse was his own, representing his descent into vampirism and beyond, into the dark and dreary and still further into “that unfathomable something called *nothing*.”<sup>56</sup> The second face of death was “beautiful and kind.” It wore the face of Nella, and it spoke of “the infinity of mighty, living Being” that will carry on to eternity. It promised him that “what you loved more than yourself—your work—will survive,” because “the idea lives on after the man disappears.”<sup>57</sup>

### **The Legacy**

Again Menni dreamt, and this time he saw two visions for the future of his treasured work. In the first, Menni was confronted by the sight of a “dying sun,” and with it the end of “everything that is born of the sun... The end of the brilliance of human thought, the end of the will, the end of joy and love!” There is no longer any difference

between the “wretched and splendid,” “insignificant and mighty,” “better or worse,” and this eternal “indifference.”<sup>58</sup> There is only nothingness. It is the “final judgment” of “everything that has any meaning of significance.” In the end, “the skeleton was right: the sum of this reckoning is zero.”<sup>59</sup>

Menni’s second vision of the future is represented by Netti addressing a crowd assembled to celebrate the solution to “the last problem.” Having understood the twin fates of the dying sun and the inevitable death of humanity, the final problem was to ensure that “our *cause* can remain and be continued.” Thus, their task was to create “signs and symbols expressing the meaning and content of our history, our labor, our entire struggle and all our victories.”<sup>60</sup> This history had been written, and giant projectiles had been crafted for their storage and transmission into the unknown void of distant space. Now, the “initial thrust” for these projectiles would be provided by a nuclear blast from “the bowels of the planet:”

“Brothers, let us joyfully welcome this moment, when the greatness of death will fuse with the greatest act of creation, the moment which will conclude our life only to pass its soul on to our brothers, whoever they may be!”  
The cry incarnating the single thought and feeling of all echoed through the hall:  
“To our brothers, whoever they may be!”<sup>61</sup>

## **Sunrise**

At dawn, Menni awoke with Nella by his side. She sang the song of his life, tearfully concluding, “like life itself your cause was mighty—In death your love proves greater still!” Menni swallowed the chemist’s compound, and “peacefully, joyfully, amid

the kisses of the women he loved, by sunrise he had fallen asleep, murmuring the words ‘Nella... Netti... Victory!’”<sup>62</sup>

## **Epilogue**

Netti passed on the responsibility for leading the Great Project to a Central Control Board just as conflict with the unions and the worker’s movement became inevitable. The next economic crisis resulted in a new round of fierce struggles, and “from this moment on there were no longer any ambiguities in class ideologies, and the rupture of the proletariat with the entire existing social order became definitive.”<sup>63</sup>

Netti ceased his work as an engineer entirely, focusing all his energy on “fulfilling his old plan of transforming science so as to make it accessible to the working class.” Together with a coterie of “cultural revolutionaries,” he began work on an Encyclopedia of Labor, and he made the first discoveries in what was to become a Universal Organizational Science. “Just as natural science had earlier served as a tool of scientific technique, now Universal Science became a tool in the scientific construction of social life as a whole.”<sup>64</sup> It was his hope that the working class would take hold of this great weapon for the “final, decisive struggle.”<sup>65</sup>

## **Philosophy in Symbolic Action**

Having provided an overview of the plot, this section now steps back to explore the philosophical, political, and rhetorical elements of the novel. Given that Bogdanov wrote *Engineer Menni* as a teaching text for the Russian working class, it is not surprising that the narrator makes an explicit comparison to the situation on Earth.

Bogdanov, through the voice of Leonid, presents the epoch of Martian history portrayed in *Engineer Menni* as “an analogous period”<sup>66</sup> of capitalist development to that of Earth in the early twentieth century. This period corresponded with an age of rapid development and expansion of industry in which earlier, smaller scale capitalist businesses were being rapidly devoured by larger competitors and consolidated into fewer and fewer corporate giants. To Bogdanov, this tendency toward capital concentration was a natural consequence of technologically driven industrial development. To present his readers a fictional thought-experiment to help guide this process, Bogdanov situates the story of Menni at the same stage of history.

Yet Bogdanov wrote with his eye toward a distant future, not with the intention of inspiring his readers to immediate action in Russia. Russians still lived under the yoke of a tsarist police state, and like most Russian Marxists, Bogdanov did not expect the first socialist revolution to occur in Russia. He looked instead to Western Europe, which was then the most highly developed center of global capitalism. In particular, Russian socialists looked to Germany as a source of inspiration. Germany had the largest and among one the oldest Marxist parties in Europe, the Social Democratic Party (SDP), and it was SDP intellectuals like Karl Kautsky, Eduard Bertstein, Karl Liebknecht, and Rosa Luxemburg who established the right and left flanks of the debate in European socialist politics. The Erfurt Program published by the SDP in 1891 expressed the right-wing position within German socialism, and even so it called for the immediate nationalization of large portions of German industry. Socialism was seen as the



necessary conclusion of capitalist development. It had become simple and plain common sense that the future was being won, blow by blow, for the workers of the world.

According to the SDP right-wing analysis, it appeared that the transition from capitalism to socialism would be a gradual process of pragmatic and popular reforms. This gradual evolution is the type of socialist transition illustrated by Bogdanov in *Engineer Menni*.

The lack of urgency in Bogdanov's writing is indicated by the complexity of the Martian situation. For as explained by Enno, the Martian author of *Engineer Menni*, the analogy between Mars and Earth is far from perfect. The general historical period or "epoch"<sup>67</sup> is the same, but there were plenty of differences to be found in the details; for Enno, it is clear that the details matter. The first important difference between Mars and Earth is the failure of Earthlings to establish a coalition between workers and capitalists. Enno explains that the earlier successes of the workers movement on Earth led to an attitude of militancy, but this militancy provoked a backlash among the capitalist class. The capitalist class on Earth "became aware of the threat posed by the proletariat even before accounts had been settled with the old aristocracy."<sup>68</sup> As a result, the same proposal for nationalization that united Menni's coalition could not create an analogous coalition on Earth. Enno observes that, on Earth, proposals for nationalization are "supported by only an insignificant handful of democrats, while almost the entire bourgeoisie rejects them as a harmful utopia."<sup>69</sup> Worse than a utopian dream, the bourgeoisie of Earth came to see land nationalization as an ideological challenge to the "sacred principle of private ownership," the central tenet of the capitalist worldview, and

“the basis of the present social order.”<sup>70</sup> Instead of allying with the proletariat and petty-bourgeoisie against the aristocratic landowners, the capitalists of Earth took the opposite course to suppress the workers movement.

The second important distinction that Bogdanov draws between Mars and Earth is the failure of Earthlings to create a unified world culture. A far cry from the situation on Earth, the Martian working class was not divided by racial hatred and colonialism, national chauvinism, and imperialist war. Just as on Earth, the capitalist nation-states had arisen to unify feudal fiefdoms into well-defined territorial states, thereby facilitating the development of global trade, but on Mars the population had never grown as diverse as it did on Earth. Thus, Martian capitalism achieved the “cultural and political unification” of the entire planet in just a few centuries, complete with a “common literary language” forming the basis of a single shared culture and a “giant Federal Republic” forming a single planetary political administration.<sup>71</sup> Cultural unity significantly reduced the degree of misunderstanding between peoples, and political unity brought an end to war. Bogdanov contrasted this Martian unity with the persistent divisions among the people of Earth in 1912, and while he could not have known that WWI was just on the horizon, he was sure that the storms of war on Earth had not passed.

Bogdanov wrote *Engineer Menni* with the hope that humans might still follow a similar, if delayed, path toward unity. After all, the cultural and political unification of Europe and indeed the entire world appeared to be rapidly progressing. The Russian Empire controlled a vast territory from the Baltic Sea to the Japan Basin, and as rates of

literacy crept upward, a Russian national culture was taking shape. The unification of Germany had been completed under Otto von Bismark in 1871, and by 1912 Germany controlled dozens of colonies across Africa and Asia. Likewise, France controlled colonies in every corner of the globe. And of course, the sun never set on the British Empire, which ruled over a quarter of the world population. As Lenin would later remark,

[T]he colonial policy of the capitalist countries has *completed* the seizure of the unoccupied territories on our planet. For the first time the world is completely divided up, so that in the future *only* redivision is possible, i.e., territories can only pass from one “owner” to another, instead of passing as ownerless territory to an owner.<sup>72</sup>

Socialists looked upon this process of world colonization as part of the general trend toward the concentration of money and power. Some, like Kautsky, believed this process would lead inexorably toward a world government and a single great capitalist power. By contrast, Lenin argued that the bourgeoisie was incapable of resolving the contradictions between warring states, and they would never settle into a stable world republic. It is clear that in Bogdanov’s Martian world, Kautsky proved correct, but given the differences between Earth and Mars, Bogdanov believed different strategies would be necessary for the final integration of humankind.

#### *Capitalist as Skeleton and Vampire*

The central antagonist in the novel is clearly the capitalist class. Although the large landowners represent an obstacle initially, they are quickly overthrown by the process of bourgeoisie nationalization. In this new stage of development, it was the

*capitalists*, represented by Feli Rao and Maro, who became the most powerful actors in society. The capitalists' motives are very simple and very clear; they want to maximize their profits. Because they see labor as a cost, they have an interest in lowering worker compensation to the absolute minimum. They use their wealth to exert dominance over the press, shaping public opinion in conformity with their own point of view, and in the parliament, determining the range of acceptable law and policy that will be passed by the legislature. In the first part of the novel, they get what they want.

Notably, the capitalists view their opponents as both the workers and the technical intelligentsia. The workers' interest in maximizing their compensation is contradictory to that of the capitalists. With only a minor influence over the media and parliament, workers tend to focus their efforts on forming unions to negotiate better wages and working conditions. Naturally, then, the capitalists see the workers' unions as things to be destroyed. The capitalists' attitude toward the technical intelligentsia is more complex. This intelligentsia, represented by Menni, wants to maximize the success of their technical projects. The distinctive interests of the technical intelligentsia are shaped by their responsibility for developing accurate technical plans, and in some cases supervising the successful implementation of these plans. Consequently, capitalists need them and value their expertise. They are highly paid for their specialized skills and may even rise into the upper ranks of society as the engineer Maro did. However, the technical intelligentsia can also come into conflict with the capitalists if there are contradictions between technical and financial imperatives. For example, Menni

interprets worker compensation as a technical matter. Whether it is the number of hours worked, the hourly wage, or compensation for illness and death, the question comes down to the necessary cost of reproducing labor power. The workers must have enough material wealth to fully restore their labor power each day and to support the healthy growth and development of the children who will replace them. To maximize the impact of the project, Menni is concerned first with efficiency, so he is willing to fulfill workers' demands that increase this efficiency. For Maro and Feli Rao, who interpret worker compensation as a financial matter, the goal is to attain the highest possible profit and thus to lower wages to a bare minimum, even if this reduces overall technical efficiency.

These tensions play out in the early dramatic chapters in the book as Menni does battle with Maro and Rao. While Menni retained administrative and financial control over the Great Project, he represented a check on the desire of capital to reduce workers' compensation to the absolute minimum. After Menni killed Maro, he was stripped of his leadership position, and Rao's leadership of the project then illustrated where the logic of profits leads. Instead of reforming worker compensation, Rao called in the police to violently suppress the striking workers. Over the following decade, Rao strategically drove the unions underground, cut wages, and gave free rein to managers and engineers to fire workers "on the flimsiest pretext."<sup>73</sup> Rao also increased his profits by cutting corners on materials. While the funding for the Great Project was public, all the materials, technology, and other goods required for the project were still privately

produced. Thus, Rao's ownership of the Dynamite Trust, coupled with his administrative role in the Great Project, resulted in the manufacture and purchase of dynamite with riskier but cheaper compounds, causing an accident "killing over two thousand men."<sup>74</sup> The entire organization, plagued by fraud and embezzlement, became a vehicle for the personal enrichment of Feli Rao and his co-conspirators.

Bogdanov's narrative argument is that capitalism undermines the overall viability of society by rigorously pursuing a singular logic of profit; insofar as the capitalist class is unable to overcome this limitation, they prove to be outdated relics of the past. As Bogdanov writes, "just as in organisms, various 'rudimentary' organs survive that were previously useful adaptations but in the present are now useless or even harmful...in social life one can observe alongside effective adaptations relics of the past that are in part useless and in part harmful."<sup>75</sup> Although Maro and Rao played a progressive role by helping to defeat the large landowners, thereby eliminating the relics of feudalism, their usefulness is limited by their inability to see beyond the logic of capital. As they become relics themselves, they must be defeated by the progressive classes, either ideologically or militarily, or the whole society will suffocate and die. Bogdanov believed that we cannot help but inherit the past, but we can do so more or less consciously, more or less strategically, as we work to build the future. He understood that the accumulated knowledge of past eras contained a vast wealth of raw materials to be reworked, reorganized into new systems of knowledge that are adapted to our changing environment. He also understood that this process of inheriting the past is far from

simple, innocent, and obvious. What we throw away and what we keep, what can safely be forgotten and what should be actively destroyed, must be the object of serious investigation. But what is perfectly clear is that capitalist relics of the past have no place in a socialist future.

Two symbols are useful in characterizing Bogdanov's view of capitalism and capitalists—the skeleton and the vampire. Both appear in Menni's dreams as he tries to resist becoming a relic of the past. As is clear from Menni's remark about the imagery of vampirism in socialist rhetoric (“I am aware that your workers often call the capitalists vampires”), the image of the vampire was as familiar a metaphor on Mars as it is on Earth.<sup>76</sup> For Bogdanov, however, the figure of the vampire represents a useful concept and not merely “agitational rhetoric.”<sup>77</sup> Taking the form of “folk poetry,” the “legend of the vampire” dramatizes the ironic tendency of self-destruction by outsized success. Bogdanov attempted to preserve this truth by giving it a more rigorous and scientific form in his organizational science. The figure of the skeleton appears in Menni's dreams to challenge him with visions of decay, death, and finally an empty, eternal, stasis. Here too, Bogdanov developed an organizational theory of “skeletal forms” that elaborates on and clarifies this conceptual drama.<sup>78</sup>

In the *Essays in Tektology*, the vampire emerges from a process called “egression,” or *becoming out of the ordinary*. Before a person or class becomes a vampire, they are simply developing their capacity for action more rapidly than other people in their social environment and thereby become a leader or a ruling class.

However, the difference between the strong and the weak, or what Bogdanov calls the “central” and “peripheral” parts of a system, become increasingly unequal, which allows for a relationship of exploitation between the center and periphery. If the exploitation of the working class generates enough surplus for the ruling class to live without engaging in direct production, the relationship becomes parasitic. The ruling class no longer contributes to the overall wealth of society, and because they enjoy a particularly easy life, they even tend to become decadent. However, the ruling class still exerts control over society through more or less violent means.

Thus the vampire is an ironic creature, at once a figure of fearsome power and pathetic dependence. According to Bogdanov, the outcome for a social system in which the ruling class has become parasitic is either the collapse of “the entire social organization,” as happened in the “the slave-owning ancient world,” or collapse of “the ruling groups or classes” in conjunction with the rise of a new progressive class, as happened in the collapse of feudalism—and as Bogdanov hoped would happen with the collapse of capitalism.<sup>79</sup> Bogdanov thought this likely to occur with the increasing exploitation of the working classes. As Marx explained in his discussion of the working day in *Capital*, “the vampire will not let go ‘while there remains a single muscle, sinew or drop of blood to be exploited’”<sup>80</sup> Thus, they will tend to increase the length and intensity of the working day to its maximum, even if the result is to diminish the length of life for individuals. This theft of life is the clearest evidence of capitalist vampirism.



The skeleton and “skeletal forms” in general emerge in a process that Bogdanov calls “degression,” which signifies *becoming ossified*. Indeed, the skeleton is the physical, hardened remnant of a once living and vibrant form. However, in *Essays in Tektology*, Bogdanov emphasizes both positive and negative qualities of skeletal forms. According to Bogdanov, systems with a higher level of organizational complexity are also more vulnerable to destruction, and thus the skeleton provides an essential stabilizing function.<sup>81</sup> True, the skeleton represents the end of growth and dynamism, but it also provides the stable structures that hold complex forms together.

Bogdanov argues that society depends on a range of “social skeletons,” including clothing, housing, containers, and most notably, symbols. Symbols are useful because they “fasten, hold and protect from decay the living plastic tissue of mental images, completely analogously to how the skeleton fixes the living, plastic tissue of the colloidal proteins of our body.”<sup>82</sup> Bogdanov depicts symbols as containers that fix the boundaries of meaning for a given concept. In his view, “only the fixed material of experience can be communicated,” and thus the stabilizing role of symbols is the foundation of every form of “transfer” and “retention” for the “collective storage of experience.”<sup>83</sup> The flip side, of course, is that “the word not only secures the living content of experience, but also hampers the future development of experience by its conservatism.”<sup>84</sup> While the world keeps changing, ideologies are hardened by the “ossification of dogma,” which applies to “religious, scientific, juridical, political and social doctrines.”<sup>85</sup> As Netti explains, “Ideas die just like people, but they cling to life

even more stubbornly after their death.”<sup>86</sup> Organizations are bound by “rules of order, official programmes, and technical or tactical directives” that can prevent them from effectively adapting to changing conditions.<sup>87</sup> Summarizing his view of symbolic skeletons and the organizational principles which can be applied to “socio-historical investigations,” Bogdanov writes,

(1) All these forms (‘ideological’) *depend* on the vital activities of society (‘socio-labouring’), and are determined by them; (2) in the process of development they are all more *conservative* than their socio-labouring content - a plastic part of the social system; they are preserved even when it has already outgrown them; and the time will inevitably come when they will become a constraint and an obstacle to its progress, so that their break-up and destruction become an organizational necessity. The regularity of social revolutions in this sense turns out to be homogenous with the regularity with which the snake must from time to time shed its skin.<sup>88</sup>

Bogdanov thus naturalizes the process of revolutionary change, likening it to the cyclical organic process of molting. In his view, an ideology should aim to reduce its skeletons to a minimum and to clear out their closets whenever necessary, but however tidy, it is unclear whether any ideology can resist the process by which it becomes an ossified dogma that must be overthrown.

The most important of these bourgeois ideological skeletons is individualism. Thus, while the “objectively guiding role” in society is played by the ruling class, the “scale of contemporary thought” makes it appear as if it is “the state” that rules over society. In Bogdanov’s view, “the state ‘rules’ over the individual, commands him and guides him; but the state does not rule over society, but only expresses and fixes the rule of some elements of society over others. The higher class in reality rules over the lower

class.” He compares the state to a “system of reins and harness,” suggesting that individuals are like horses wearing blinders who cannot see their driver.<sup>89</sup> Insofar as the bourgeoisie promulgates an individualist rhetoric and the parliamentary democratic state as the organizational form, they are offering up skeletons that can no longer contain the body politic.<sup>x</sup>

*Menni: Symbol of the Bourgeois Intelligentsia*

The engineer Menni stands as the first important corrective to capitalist vampirism. Menni is a symbol for the creative power, scientific rigor, individualism, and authoritarianism of the bourgeois technical-intelligentsia. From Menni’s point of view, humanity can and should transform the natural world for its own ends. Nature represents spontaneity and risk, and our attitude toward nature should be that of unhesitating, unceasing, uncompromising conquest and control. Menni thought of the desert as a “Kingdom of Silence” that must be “invaded” by life-giving water and which “battled” against new plant life.<sup>90</sup> The success of his irrigation project was a “tremendous blow” to the elements and a testament to the infinite abilities of “man.”<sup>91</sup> After transforming the Libyan desert from dustbowl to oasis, Menni imagined the entire Martian planet “conquered” by humanity. This, Nature provides resources for human exploitation. Once the measurements have been taken, it is only a matter of applying the necessary force.

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<sup>x</sup> Netti clarifies that “democracy...has not yet accomplished all that it can, but if it is to remain viable it must change and develop together with society” (Bogdanov, *Red Star*, 213).

Much like his attitude toward Nature, Menni approaches Society as the object of technical problems and solutions. To finance his Great Project, he needed a larger and more stable source of income than the private banks could supply, so he analyzed the social system to arrive at another solution. To do so, he relied on the best social scientific research available to him: namely, the political economy of Xarma, which explained the motives of the different Martian social classes and how they would be affected by changing economic conditions. Menni would need to take advantage of “favorable historical circumstances” where his interests converged with a majority bloc capable of taking collective action to achieve their common goal. Menni saw that the Big Landowners had a monopoly, preventing the growing population from acquiring land of their own, driving up the cost of living for workers, and thus driving up the necessary minimum wage paid by industry.<sup>92</sup> He had neither personal enmity toward the landowners nor sympathy for the workers; he simply wanted his project financed. So he put forward a plan for land nationalization that would lower the costs for both workers and industry based on Xarma’s ideas.

The audience for Menni’s call to action were “the proletariat and semi-proletariat,” the “remnants of the petty-bourgeoisie,” the “majority of capitalists,” the “intellectuals,” the “socialists,” and “certain radical democrats.”<sup>93</sup> These were the “various classes” he hoped to unite behind a program of land nationalization. All of them were aligned against the “big landlords,” but each group had distinctive interests and favored different programs for nationalization. The petty-bourgeoisie advocated a

program of distributing the land to individual peasants while the majority of socialists advocated for the land to be transferred to large-scale cooperatives. Xarma, the radical democrats, and most of the capitalists favored “a simple bourgeois ‘nationalization’ of the land”: that is to say, public ownership coupled with a policy of leasing land to the highest bidder.<sup>xi</sup>

In Menni’s view, the third option was the only feasible plan. Distributing the land to individual peasants “threatened to destroy agriculture by depriving it of artificial irrigation.”<sup>94</sup> Evidently, due to the “generally dry climate,” massive expenditures on artificial irrigation were necessary to support food production on most of the Martian terrain, and the peasants could not afford these capital-intensive projects individually.<sup>95</sup> Transferring the land to cooperatives was also unrealistic for the same reason—limited access to capital. However, Menni did not attempt to convince the various classes to abandon their ideals. Instead, he pointed out that neither individual distribution nor cooperatives could be “effected rapidly.” Emphasizing the urgency of acting now and the risk of missing this brief window of opportunity, Menni argued that the whole coalition must take the swiftest steps to depose the big landowners. After defeating the big landowners and “leasing the land in the usual way, by auctioning it off,” each plan would have its day in parliament.<sup>96</sup> The various social classes, like all natural objects,

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<sup>xi</sup> Bogdanov, 166. In staging an opposition between Xarma and the majority of Martian socialists, Bogdanov presents the reader with an analogy to the opposition between Marx’s scientific socialism and the utopian socialists, among others, for whom socialism was a moral cause rather than a scientific prediction about the necessary path of socio-economic development.

present their distinctive forms of resistance, and Menni applies only as much force as necessary.

Menni's individualism is revealed by his choice of communication medium, which is ideological literature. He does not give speeches, and he is little involved in behind-the-scenes organizing of the political action that brings about his favored plan for nationalization. Menni's contribution was to write a book for a popular audience, making the argument that nationalization would serve the "Great Cause" and providing a "very simple" narrative that illustrated the convergent interests of each group. When it came time to put this plan into action, "Menni did not participate directly in this struggle, which went on for two or three years, but continued to work on his technical plan."<sup>97</sup> In other words, he continued the more individual work of research and writing rather than involving himself in collective action.

Further evidence of Menni's individualism is found in his complicated relationship to bourgeois republican institutions, such as the parliament and the courts. Menni appears to be a genuine believer in the parliamentary system of government. From the outset of his administrative control over the Great Project, Menni structures negotiation over labor contracts according to the model of parliamentary elections. Each worker signs their contract individually, is paid individually, and deserves a single vote for their representatives. This is his view of institutional justice. When Menni advocates that each class should debate their preferred plan for nationalization in the Parliament after the landlords have been deposed, the narrator comments that Menni "was not aware

how deceptive these arguments really were.”<sup>xii</sup> Menni sees the Parliament as a neutral terrain where competing interests are negotiated, whereas the scientific socialist narrator depicts the Parliament as an institution of bourgeois dictatorship not truly subject to popular control. When Menni later attempts to pass reforms to improve working conditions on his project, he is stunned that this cannot be accomplished by the party holding a majority of seats in the Parliament. The Prime Minister must inform him that while their party “formally” holds the majority, in reality their representatives are serving Feli Rao’s interests.<sup>98</sup>

On the other hand, Menni has a very negative attitude toward the bourgeois legal system, as he appears to consider himself above the law. Rather than attempting to defeat Maro and Feli Rao by exposing their corruption in the courts, he slashes Maro’s throat. In court, the judge declares fidelity to the principle that everyone is equal before the law. According to Menni, the real crime—Maro’s crime against science and humanity—has been committed beyond the reach of the law. So to him the trial is a sham. Menni insists that he carefully considered whether it was morally correct to kill Maro, and that he did so intentionally. He has total confidence in his individual moral compass. When he is offered a retrial, Menni obstinately declines. Refusing to grant the courts even the semblance of legitimate authority to determine the justice of his decision, he will not even accept a pardon.

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<sup>xii</sup> Bogdanov, 167. Also interesting is the fact that “Xarma realized this [deception] immediately, but he supported Menni's plan.”

Menni's authoritarian attitudes are reflected in his "project dictatorship" and in his worldview. In the first scene of the prologue, Menni declares that he will take part in the Libyan project only if he is granted complete technical, financial, and administrative control. He argues that "a collective principle may be useful for the development and discussion of the plan, but not for its execution."<sup>xiii</sup> To ensure the highest degree of unity in execution, the project must be run by "a single person who will select his own assistants and assume full control and responsibility for all details."<sup>99</sup> The project in Libya was a dream to which Menni had already dedicated years of his life. He had seen his friends die in the Libyan desert while collecting research for his book, *The Future of the Libyan Desert*. Now he was prepared to walk away from the project entirely, insisting that he would agree to take "all responsibility or none whatever."<sup>100</sup> The same conditions applied to Menni's larger project of transforming the entire Martian planet, where he was granted "almost dictatorial powers."<sup>101</sup> As noted by the "reactionary press," Menni's aristocratic father, Duke Orman Aldo, could not have dreamt of "acquiring the power actually possessed by his republic engineer son."<sup>102</sup> Menni exercised authority over millions of workers, and he made decisions that would cost tens of thousands of their lives. His great idea would be realized by his command and the hands of the masses.

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<sup>xiii</sup> Bogdanov, 156. Notably, this was Bogdanov's favored principle of organization for the RSDRP. This is the principle of "democratic centralism," a form of organization that prescribes a period of lively collective discussion and debate while the plans are being made, followed by a period of strict unity and adherence to the plan during its execution. Bogdanov even advocated for the dictatorship of a single individual during the execution phase for maximum unity of action.



The authoritarian elements of Menni's worldview emerge in conversations with Netti. Contrasting his view of "ideas" to Netti's, Menni explains that "I have always served an idea, and I have always been the master of my exertions. Exertion is merely a means, while the idea is the highest goal. The idea is more than people and everything belonging to them. The idea does not depend on them —on the contrary, people are subordinate to the idea."<sup>103</sup> Menni's theory of knowledge draws a division between the active idea and passive body, describing the relationship between them as "mastery" and "subordination." Bogdanov refers to this master-slave trope as "authoritarian dualism" because it is the transposition of authoritarian economic relationships between organizers and implementers, or mental labor and manual labor, into the realm of philosophy. In practice, the workers are subordinate to Menni's organizational directives, but Menni sees himself as subordinated to the idea itself, to the eternal and Absolute Idea. Menni describes the process of scientific discovery as an ecstatic mystical experience: all the "strenuous work" and "intense struggle" was "blotted out by the radiant brilliance of my discovery. It was even as though I myself had ceased to exist."<sup>104</sup> Menni concludes from his feeling of total subordination and ego-dissolution that "even if humanity disappears, the truth will remain the truth." Truth is Absolute, and so plays the role of a God term standing atop the hierarchy of Menni's ideology.<sup>105</sup>

### **Menni's Monsters**

Menni encounters the vampire as a temptation to cling to life even after he has given everything that he has to give, and this temptation is presented as a heroic struggle

for truth and authenticity. As the effective control and direction over the Great Project is slowly transferred to Netti, Menni became less interested and less energetic: “He became increasingly absentminded and even inconsistent in his relations to those around him, and he tried to cut his business meetings and discussions to a minimum, as if they greatly tired him.”<sup>106</sup> As he cuts his work to a minimum, Menni slowly decreases his ratio of consumption to contribution, beginning to “take more from life than he gives it.”<sup>107</sup> When the vampire appears in his dream, he tells Menni that “little by little you are *ceasing to be yourself*,” and indeed, he appears to have lost the passionate energy that motivated his struggle for the Great Project.<sup>108</sup> Thus, the vampire instructs him that he must “conquer at one blow everything that is driving you to betray yourself: love, friendship, paternal feelings, sympathy, gratitude.”<sup>109</sup> In doing so, Menni will be able to wage the stubborn struggle against the unions that is necessary to reclaim his sole authority over the project. He will be able to once again subordinate Netti’s “poetry of labor” to the immutable and eternal truths of “rigorous science.”<sup>110</sup> His steadfastness will be a living affirmation that “life which changes demonstrates by that very fact that it is a life, because the truth is forever the same.”<sup>111</sup>

The vampire goads Menni into fighting for stasis with an army of ideological skeletons. As Netti had explained, the vampire “sinks his fangs” into life and “tries to turn it back to the past, to the time when he still sensed his bond with it. He is not only a parasite but an active enemy of life.”<sup>112</sup> Menni has lost his connection to the project, and his lack of energy has already started to become a burden. Now, to become a “hero” in

the eyes of the vampire, Menni must actively renew his struggle for individualism and absolute truth against Netti's proletarian logic and the collectivism of the worker's unions. However, Netti's theory has inoculated him to the temptation. Menni affirms his commitment to the future and to the rising proletarian social forces who will carry it out. Menni tells the vampire that "truth will triumph, but it will not triumph *against* that which is full of strength and purity and nobility, but *together with it!*"<sup>113</sup> Instead of returning to his authentic self, Menni joins Netti in declaring himself a vampire killer: "I killed you once when you crossed my path, and now I will kill you again!"<sup>114</sup>

### **Cult(ure) of the Engineer**

Menni's relatively positive portrayal in the novel seems to justify the accusation that Bogdanov favored technocratic conceptions of socialism. For example, Richard Stites's introduction to *Red Star* characterizes Bogdanov's work as a "celebration of technocratic power, of the technical intelligentsia...and the corresponding downplaying of proletarian energy, party authority, and class struggle."<sup>115</sup> The critique of Bogdanov's technocratic worldview was perhaps most forcefully advanced by Evald Illyenkov in his 1979 *Leninist Dialectics and the Metaphysics of Positivism*. It is no coincidence that here too, the interpretation of Bogdanov as a technocrat proceeds from a reading of his science fiction novels. Reading *Engineer Menni*, Illyenkov argues that

Bogdanov's philosophy is therefore like no other in holding on to those specific illusions of our century which have come to be called technocratic. The secret of these illusions is the idolisation of technology – technology of every type – from the technology of rocket design to the technology of dentistry, bomb-dropping or sound-recording. And with such an approach, the engineering and technological intelligentsia begin to resemble – both in their own eyes and in the eyes of others

– a special caste of holy servants of this new divinity. Bogdanov paints an inspired and poeticised portrait of these 'demi-gods' – the organisers and creators of progress. ... What comes to the forefront is the propagation of the utopian conception about the role of engineers in the development of history and about the great advantages of their method of thinking over all other forms and methods of thinking.<sup>116</sup>

There can be no doubt that *Engineer Menni* did inspire segments of the Russian technical intelligentsia with grandiose dreams of transforming Russia, much as Menni had sought to transform Mars. For example, “during the debates and reports at the outset of the Five-Year Plan, G. M. Krzhizhanovsky, an engineer and one of the architects of the plan, made oblique reference to Bogdanov's great canal projects on Mars.” Stites adds that “in 1929, the famous city planner L. M. Sabsovich likened the plan to ‘the great projects’ of *Red Star*.”<sup>117</sup>

Bogdanov would not have been offended by such a comparison. He clearly celebrated the technical achievements of industrialized societies. Had he lived to see it, he would likely have been willing to justify projects like the flooding of Mologa, a small trading city in the Yaroslavl province where Bogdanov's family lived for about a decade in the 1870s and 1880s. In 1935, plans were made for Mologa to be flooded to create the Rybinsk Reservoir and the Rybinsk Hydroelectric Plant. This dramatic transformation of the natural and social-historical environment of Mologa was undertaken in the name of the greater good, and as on Mars, it was costly. The massive undertaking would eventually require the relocation of 130,000 people; when the city was flooded, nearly three hundred people refused to move, preferring to drown themselves in protest. It is

not unthinkable that Bogdanov, like his characters Menni and Netti, had the capacity to transform human lives into faceless numbers.

Likewise, I am not entirely convinced by Loren Graham's assertion that "Bogdanov must have seen in the looming Shakhty trial the grotesque perversion of the ideas in his novels."<sup>118</sup> In the Shakhty trial, "Fifty-three engineers and technicians were to be brought to court under accusations punishable by death" for "counterrevolutionary conspiracy among the engineers of the coal mines in the Ukraine."<sup>119</sup> In *Engineer Menni*, Bogdanov has portrayed Menni and Netti as great heroes for directing the investigations and prosecution of engineers who had been involved in corruption on the Great Project. We learn that Netti was successful in large part because he always sided with the workers against their superiors, who would try to scapegoat them. We see that the prosecution of the corrupt managers and engineers is eventually represented as persecution in the Parliament and bourgeois press, who urge Menni and Netti to forgive and forget.

However, Bogdanov would very definitely have taken issue with being labeled "the ideologist" of the radical intelligentsia, as Dominique Lecourt has called him. Although Bogdanov had hoped to speak for the Russian workers, Lecourt argues that Bogdanov spoke for the technical intelligentsia, and that he had "relayed to this intelligentsia... a systematized representation of their own 'spontaneous' ideology, dignified by the authority of Marx."<sup>120</sup> According to Lecourt, Bogdanov's critiques of the bourgeois technical intelligentsia only prepared the way for a proletarian technical

intelligentsia that would distort Soviet science on ideological grounds. Much as Engineer Menni sees a “poetry of labor” in Netti’s proletarian science, so Lecourt sees Bogdanov as the proponent of “a real metaphysics of labour as Absolute Origin of entities and thoughts.”<sup>121</sup> The result was a technocratic vision of socialism that ultimately led to the “Stalinist deviation.”<sup>122</sup>

I believe that representing Bogdanov only as a one-dimensional technocrat is unfair to the complexity of this thinking. Both John Biggart and Zenovia Sochor have emphasized that Bogdanov attempted to develop the capacity of organic intellectuals, and that his program of proletarian science and culture was meant to avoid over-reliance on the bourgeois technical intelligentsia.<sup>123</sup> More recently, Craig Brandist has argued that Bogdanov was skeptical of worker “self-activity,”<sup>124</sup> and yet he reached similar conclusions as Biggart and Sochor when it came to Bogdanov’s attitude toward the technical intelligentsia:

During the NEP period, many of Bogdanov’s ideas about proletarian culture found an advocate in Bukharin, who ultimately tried to reconcile certain of Bogdanov’s ideas with Lenin’s final writings about combating the growth of the bureaucracy to create a general theory of cultural revolution. One of the many differences between Lenin, on the one hand, and Bogdanov and Bukharin on the other, regarding this question, was the latter’s contention that it was the technical intelligentsia that represented the greatest danger to the revolution by potentially becoming a new ruling class.<sup>125</sup>

Thus, the view that Bogdanov’s philosophy and politics were essentially technocratic is not a matter of general agreement. Given such competing points of view, we should be skeptical of any interpretation that claims to read Bogdanov’s philosophy directly from

the page in *Engineer Menni*. Indeed, Illyenkov’s criticism takes for granted that Bogdanov’s philosophy is “concealed” in his fictional world.

For Bogdanov, Menni’s role as an engineer has important implications. Even while his bourgeois attitudes and worldview are quickly becoming outdated, his position in production gives him a certain advantage over the capitalists, represented in *Engineer Menni* by Maro and Feli Rao. In a 1924 essay, Bogdanov described the worldview of the technical intelligentsia as having “considerable merits” including “a profound realism, positivism, an unwavering criticism of entrenched, moribund conceptions, the elimination of many fetishes in the realm of cognition”—all attitudes he attributed to their “living experience of production.”<sup>126</sup> Bogdanov believed that a realistic worldview is developed by encountering resistance to one’s labor efforts. Ideas can be verified only in practice, and the frontline of labor practice is technology: that is, the realm of contact between humans and nature. Feli Rao is far removed from the realm of technology; indeed, Bogdanov saw finance as a particularly parasitical social group within the ruling class, taking the surplus product of society without contributing to production. However, when the ruling class becomes separated from real production and thereby abandons its organizing responsibilities, it no longer encounters the practical resistance necessary to test its ideas. This problem is exacerbated by the fact that finance is concerned with the vicissitudes of the stock market.<sup>xiv</sup> According to Bogdanov, this tends to produce a

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<sup>xiv</sup> Bogdanov refers to the stock market as the “legitimate representative” of “society,” by which he means the society of the professional middle class and the bourgeoisie (Bogdanov, *Red Star*, 206-207).

philosophy of accident, randomness, and fortune, the worldview of a gambler.<sup>xv</sup> Menni, by contrast, is constantly coming in contact with collective labor. As a specialist, Menni takes an abstract view of science that emphasizes the importance of “purely theoretical, contemplative ideas.”<sup>127</sup> Nonetheless, he is repeatedly forced to test these ideas in practice. Engineers “do not engage manually in the struggle with the activities-resistances of spontaneous nature,”<sup>128</sup> but through his regular supervision and revisions to the plans of the Great Project, Menni can determine the extent to which his organizing idea is correct, according to the progress made toward concrete goals.

Menni plays a generally progressive role in Bogdanov’s drama, but the reader is not expected to identify with all Menni’s attitudes and actions. Bogdanov glorifies Menni’s capacity to transform the world, but in my view, Menni becomes a hero of the story only through his selfless act of suicide. For Bogdanov, the worldview of a given social group or class can be eliminated from society without the death of even a single one of its living human members;<sup>xvi</sup> however, given that Menni is a symbol for the bourgeois technical intelligentsia as a whole, suicide is a useful narrative device for symbolizing the liquidation of a class.<sup>129</sup> Netti successfully convinced Menni that his historic mission was complete; thus, Menni’s suicide symbolically resolves the

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<sup>xv</sup> For example, Bogdanov attributes David Hume’s skepticism about causality to “the great financial crisis associated with the speculation of his countryman,” which was “the most vivid example of the instability of the economic fate of people living in bourgeois society” and led to a philosophy of “randomness” (*The Philosophy of Living Experience*, 117–188).

<sup>xvi</sup> “A social norm is subject to positive or negative ‘selection’ – i.e. to preservation (or development) in the first case or destruction in the second – and this does not at all occur only through the survival or the early death of the individuals in which it is embodied” (Bogdanov, *Empiriomonism*, 304).



contradiction between past and future by allowing him the opportunity to consciously and actively choose his future without thereby becoming an impediment to the progress of society as a whole.

### *The Socialist Transition*

The failure of Feli Rao to successfully manage the Great Project, the grand vision that provided a rallying point and “Great Cause” backed by the vast majority of Martian society, created an opening for opposition forces, and the proletarian engineer Netti stepped up to fill this role. Like Menni during the period of land nationalization, it was Netti’s role to articulate the necessary coalition of class forces to overthrow the reactionary elements of the ruling class: in this case, an alliance between the proletariat and “broad sections of the bourgeoisie who have suffered at the hands of the syndicates,” including the bourgeois technical intelligentsia.<sup>130</sup> In order to reverse the process of decay and corruption that had set in on the Great Project during the period of anarchical organization (i.e., capitalist organization on the basis of exchange relations alone), Netti believed that Menni would need to return to the project with his full authority restored. But first, the union leadership must surmount the anarchical organization of the working class.

The unions had been effectively suppressed for years, but Netti helped to organize a secret conference of union leaders from every site on the Great Project. All the union leaders “agreed that the common struggle must be initiated immediately, for otherwise anarchical disorders would begin flaring up sporadically on their own.”<sup>131</sup>

Anarchical systems are disorganized and so lack the force to accomplish their objectives against opponents with a higher level of organization. Thus, isolated wildcat strikes will be easily crushed, and with these defeats the rebellious spirit of the workers might also be crushed. But the risk of wildcat strikes is also symptomatic of the rhetorical situation. Union leaders saw both the urgency of the situation and the likelihood that their rank-and-file audience would respond favorably to a call for collective action. They prepared a manifesto calling on unionized workers from the railroad workers, the coal miners, and the mechanics to join the workers of the Great Project in a general strike.

Netti took advantage of this rhetorical situation to publish a “book of disclosures” describing Feli Rao’s corruption and to call for Menni’s reinstatement at the head of the Great Project, all coinciding with a general strike by the workers. It was well known that Menni was an enemy of the unions and a member of the ruling class. However, Netti also pointed out that “we seldom have the opportunity to choose our enemies, but when it is possible we must learn to distinguish between them.”<sup>132</sup> Menni was an honest and principled enemy who could be counted on to restore the previous labor conditions for his own reasons. Moreover, reappointing Menni would drive a wedge between different social groups within the ruling class: “What better way to shatter the ranks of our enemies than to confront them with this unexpected and menacing demand?”<sup>133</sup> There are certain constraints on the workers’ situation which will exist “as long as the present order exists, as long as there is exploitation, as long one

class fears and rules over another.”<sup>134</sup> In the meantime, the best strategy for proletarian power was to divide and conquer.

### *Netti as Proletarian Intellectual*

Unlike his father Menni, who represents the authoritarian engineering mentality, Netti is a *proletarian* technical intellectual. That is to say, he was an engineer raised in a worker’s family and who worked in a factory himself as a child. This milieu imprinted him with a proletarian point of view, also encouraged by his mother Nella and his adoptive father Arri. Netti was also active in politics, first as an organizer for labor union efforts and then as a founder of the Martian workers’ party. But even though he was a proletarian, he was still an engineer; he studied at a Martian university and received specialized training in the sciences. This gave him a technical-intellectual point of view like that of Menni, the biological father he would not know until adulthood.<sup>xvii</sup> Bringing his class and social group attitudes together, Netti represents the viewpoint of an organic proletarian technical intellectual, a position Bogdanov held in high regard and spent the better part of his life trying to cultivate through his educational practice.

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<sup>xvii</sup> This dual parentage is an interesting way to dramatize the relationship between nature and nurture in a character. Netti’s natural heritage comes from Menni, who represents the bourgeoisie, but his upbringing is proletarian. Likewise, Menni’s heritage was aristocratic, but he received a republican education. We might think that Netti and Menni share the technical outlook of their common social group due to common education, and this is important, but it is also clear that for Bogdanov, their biological relation translates into a capacity for deep mutual understanding such that they quickly agree without much discussion. This is the kind of agreement that Bogdanov depicts in the future socialist society, characterized by a universal brotherhood. It is also a feature of Bogdanov’s philosophical anthropology, which argues that the meaning of the first words were common to all members of primitive society in part because their kinship produced a relatively homogenous physiology.

In a series of conversations with Menni, Netti lays out the basic framework for his *proletarian consciousness* and its differences from the *bourgeois consciousness* that preceded it. In the first dialogue, Netti explains that different forms of class consciousness belong to different historical epochs, and that each form of consciousness is a step on the ladder of progress. Thus, the “historical mission” of bourgeois consciousness was to overcome the feudal consciousness that preceded it. The task of bourgeois culture was “to create a human *individual*, an active being inspired with self-confidence who would be distinct from the human herd of the feudal epoch.”<sup>135</sup> However, Netti argued that this historical epoch was coming to a close. As a steppingstone to proletarian consciousness, bourgeois society prepared the way by transforming the conditions of labor collaboration. Specialization created individual consciousness by fragmenting the living experience of workers into isolated parts, and yet beneath this fragmented experience was a tremendous well of collaboration and interconnectedness. As Netti observes, the creations of capitalist industry “presuppose cooperation on a gigantic scale.”<sup>136</sup> But now, having achieved its historical task of liberating the individual from the herd, individualism has become an obstacle to progress.

Netti argues that the tremendous scale of capitalist cooperation in the bourgeois epoch fails to produce a harmonious society because of its mechanistic form. Deploying the mechanistic metaphor in his argument with Menni, Netti explains that “the unity of labor that is given to the workers from without and arranged for them by others is only a

mechanical, unconscious unity, rather like that which joins together the parts of a complex machine. The discs and screws of a machine are not taken into account but merely counted.”<sup>137</sup> In other words, the individual workers, like nuts and bolts, do not participate in determining the overall form or purpose of the work they perform. From the capitalist perspective, the worker is nothing but “material to be molded.”<sup>138</sup> And so, according to Netti, the worker is doomed to remain “a tool in the hands of others,” organized from without, unless and until they become conscious of their interdependence and therefore “unite with other workers” in the workers’ organizations.<sup>139</sup>

Menni’s mechanistic logic leads to the view that workers ought to be organized on the model of Parliament, with a body of elected representatives chosen by the majority of workers. Netti argues that this mechanistic logic applies only to a “heterogeneous conglomerate,” whereas the proletariat is an organic system. Thus, Netti tellingly characterizes parliamentary styles of political organization as mechanistic. His reasoning is that parliamentary systems lack a single, conscious, guiding purpose or plan because each of its members acts out of his or her own particular self-interested life and not with the consciousness of the good of the whole. Rather than seeing parliamentary systems as discursive means of creating consensus, he sees them as inefficient, anarchical systems that lack coherent direction.

In contrast, the workers’ organizations are able to represent the working class as a whole because the worker’s organizations are the consciousness of their class. For

Netti, the criterion of consciousness overrides the majoritarian logic of parliamentary democracy. Thus, if a worker “can and prefers to exist only for himself and live what he erroneously imagines to be a separate and independent life, then as an unconscious being he is not a member or a representative of his class, even if he and likes of him constitute the overwhelming majority of workers.”<sup>140</sup> The working class can liberate the collective power of all humankind only if they become self-organized, and so they can be represented only by their self-conscious members.

Thus, it was time to pass the torch of cultural hegemony to the rising progressive class and its new form of proletarian consciousness. Netti explains that the proletarian logic of life and consciousness “aspires to transform life into a harmonious whole.”<sup>141</sup> Whereas the bourgeois epoch is characterized by a radically atomized individualism, Netti argues that the proletariat will “gather these active atoms, bind them together with a higher bond, introduce harmony and order into their uncoordinated collaboration, fuse them into a single intelligent human organism.”<sup>142</sup> The tendency of bourgeois society is separation, while the tendency of proletarian society is unity. In Netti’s view, it is the “historical mission” of the working class to transform human consciousness into an organized whole that is more than the sum of its parts, more than the “sum of individual lives of the chaos of isolated consciousness.”<sup>143</sup> The organized expression of this unity are the workers’ organizations, which Netti describes as the “embryo” of a “single intelligent human organism.”<sup>144</sup> Thus, Netti describes the transformation from bourgeois

consciousness to proletarian consciousness as a transformation from a mechanistic organizational structure to an organic structure.<sup>145</sup>

For Menni, this vision of a new collective consciousness “borders on dangerous metaphysics,” but Netti insists that his scientific socialist point of view is no more metaphysical than the scalar shifts implied by many other discoveries of modern science. He argues that “the notion of a living being changes from epoch to epoch” and points out that not even the most educated men of the previous century would have believed the modern biologist, for whom “man is a colony of one to two hundred trillion invisibly small living beings.”<sup>146</sup> This does not imply that socialism will “transform human individuals into beings which resemble cells,” as Menni fears.<sup>147</sup> Rather, Netti explains that a transformation of the whole implies a transformation of each individual: “The cells of an organism are not conscious of the whole to which they belong. For that reason, they instead resemble the present-day type of individual. We, on the other hand, are striving to make man fully aware of himself as an element of the great laboring whole.”<sup>148</sup> Netti’s vision of transcendence implies an oceanic consciousness of oneness among the workers, a monism of consciousness, but a monism characterized by complex harmony—an interconnected and dynamic network of consubstantiality—rather than simple homogeneity.

### **The Idea of Labor**

The nature of this monism becomes clearer in the next dialogue with Menni, “Deeper and Deeper,” where they debate whether “essence” of ideas is found in logic or

labor. Menni observes that “Where I find it self-evident to speak of the triumph of an *idea*, you see the triumph of *labor*.” Netti responds that “it’s all the same thing.”<sup>149</sup> For Netti, the most powerful worldview must be monistic, or as he put it in the previous discourse, it must ensure that the class it unites is “guided by a single principle.”<sup>150</sup> Menni fails this test by drawing a strong distinction between ideas and labor, thus holding to the philosophical dualism of mind and matter. Netti advocates for a point of view that transcends and unites the philosophical contradiction between mind and matter, just as socialism will transcend the division of mental and manual labor in living experience.

To demonstrate the basic continuity of ideas and labor, Netti performs an analysis of “ideas as they are found in life itself,” first on “the idea of freedom” and then on “the plan of the Great Project.”<sup>151</sup> To explain the idea of freedom, Netti describes an evolutionary process in which millions of people encounter boundary constraints on “their labor, their efforts, their aspirations...and the creative work born in their minds.”<sup>152</sup> Through repeated efforts and frustrations, these efforts are slowly channeled in the same direction; this “unity of human efforts in a living struggle” is what gives “vital meaning” to the idea of freedom. As neatly summarized by Menni, “in other words, if not for despotism, oppression, and arbitrariness, there would not have been any idea of freedom, because there would have been no unified effort to overcome these obstacles.”<sup>153</sup> Moreover, he argues that without the idea of freedom “their common direction and unity disappears,” and in this way the idea is essential. But “remove these



efforts and nothing will remain of the idea.” Thus, for Netti it is clear that labor precedes its idea historically and determine its content, though not its form.

Netti then applies the same logic to Menni’s Great Project, arguing that his idea was the result of a living struggle between the population growth of human society and the uninhabitable desert, which presented a “boundary” to that growth.<sup>154</sup> The failure of humans to colonize the desert left “dreams in the wake of struggle,” and a “dream, after all, is merely an effort that has been frustrated in reality and retreated beyond it into the realm of fantasy.”<sup>155</sup> Unsurprisingly, then, these dreams first became the subject of “a prophetic social utopia,” which is likewise “an expression of aspirations that cannot be realized, of efforts that are not equal to the resistance they encounter.”<sup>156</sup> For Netti, truth is the product of harmony and unity. For Menni’s idea of the Great Project to succeed, a whole range of diverse aspirations had to “fuse into a single idea” such that the idea could organize “systematic labor.”<sup>157</sup> The idea is “necessary” to the organization of labor. But without labor, there is nothing to organize.

Netti’s argument attempts to surmount the dualism of idea and labor, mind and body, spirit and matter, idealism and materialism, but he manages to displace the terminology of these binaries only with a dialectic of form and content, organizer and organized, activity and resistance.<sup>158</sup> Thus, while attempting to articulate a synthesis, Netti returns to a position that affirms labor efforts as historically and ontologically prior to the ideas that organize them. Thus, he can affirm that “it does not matter that people were themselves unaware of why they were happy to struggle and even die for the idea

of freedom, for their feelings were clearer and deeper than their thoughts. Man knows no greater happiness than to feel himself a vital part of a mighty, all-encompassing impulse.”<sup>159</sup> In the binary of feelings and thoughts, Netti’s assertion only mirrors and inverts Menni’s distinction between mind and body. Thus, Netti fails to transcend the theoretical object of his critique, instead supplying the romantic image of transcendence as submission to a universal intuition.

Netti’s argument also provokes reflection on the question of philosophical realism implied by the binary opposition of invention versus discovery. Did Menni discover the idea of the Great Project or did he invent it? On the one hand, Netti asserts that Menni did not simply discover the idea of the Great Project, but rather invented it. Describing the victory of the idea, Netti tells Menni that “I could even say ‘your victory’ and not be wrong, for you did not discover or find your idea as you think you did. Rather, you created it out of something that was not yet an idea. Man is a creative being, Menni.”<sup>160</sup> On the other hand, Netti’s description of this creation has the marks of passivity that would imply the concept of discovery. Menni stands in a long line of aspirations and investigations by “men of labor” and “men of science.” “The suppressed activity of centuries was seeking an outlet,” and it was finally realized in “a man...whose soul was so expansive and profound that it could instinctively unite and fuse within it all these different elements of human striving.”<sup>161</sup> Menni’s “soul” is responsible for the “instinctive” unification of the labors, dreams, and utopias that came before it. Menni’s idea first belonged to the same kind of universal feeling that united

the masses in their desire for freedom, as if by a secular form of divine inspiration. Then Menni grasped the knowledge, methods, science, and technology of the modern world, and from these “disparate elements there arose a living, harmonious whole, and this synthesis was the idea of the Great Project.”<sup>162</sup>

In Netti’s narrative, therefore, Menni’s intellectual labor is displaced by the immanent power of the idea, which simply “arose.” And again, Menni’s organizational labor is off stage when “its [the idea’s] concentrated force united a new mass of labor around it, and the world of millions translated it into reality.”<sup>163</sup> Just as in Netti’s argument for a synthesis of labor and idea, the theory appears to be partially contradicted by the analysis. In this case, the explicit assertion that Menni is a creative inventor of the new is undermined by the implicit framing of Menni as a passive receptacle for historical inspiration. Just who is the author of the “logic of consciousness” remains an open question, but Netti’s language drifts toward mysticism.

### **The Proletarian Scientist**

The tensions in Netti’s worldview are mirrored by the tensions between his contradictory social position as both proletarian socialist and a technical intellectual—that is, between one who identifies with the working class and one who identifies with the organizational elite. This contradiction is made explicit during Netti’s participation in the union congress, where he participates as a speaker but without the voting rights of a member. As Arri tells the assembly, Netti is an “engineer” who “attended the same schools as our enemies,” but he is also “from a worker’s family” and he got an education

“to find new weapons for the defense of our cause.”<sup>164</sup> On the one hand, as an engineer Netti is an “outsider”; on the other hand, having come from the proletariat, he is not a “stranger.”<sup>165</sup> Striving toward his ideal of a life organized by a single principle, Netti tries to eliminate these contradictions from his experience to the greatest extent possible. For example, when Netti accepted a new position on the Great Project, it was on the condition that he not be responsible for labor negotiations: “To be the official representative of one side and yet have all one’s sympathies and interests with the other side would result in such divided loyalties that the proper balance would prove extremely difficult and perhaps even impossible to maintain. If one is to be true to oneself and preserve the lucid wholeness of one’s consciousness, such contradictory roles must be avoided.”<sup>166</sup>

Still, one cannot resolve a contradiction simply by avoiding it. There is a deeper contradiction between Netti’s social roles that cannot be dealt with by refusing jobs that imply “divided loyalties.” This is a contradiction rooted in the historical structure of authority that makes a division between leader and follower. In the case of labor organization, this division manifests as the difference between knowledge and belief, or between those who know (the technical intellectuals) and those who are forced to believe (the laboring classes). At the meeting, one young worker describes the position of his class as a kind of intellectual slavery: “Isn’t this slavery, the worst form of slavery? Netti, Arri, brothers: how do we escape from this? What must we do so that we ourselves can *know and see*, and not just constantly believe?”<sup>167</sup> This is the problem of

authority derived from expert knowledge. Netti and his worker comrades recognize that the asymmetry of their access to knowledge results in asymmetrical power relations.

In the case of Netti, this gap is bridged through rhetoric. Even as a non-voting member of the union congress, Netti's speech carries an outsized influence on the course of events, and the union representatives eventually vote in favor of all Netti's proposals. Just as Menni has the authority to direct the organization of labor on the Great Project because of his deep technical knowledge, Netti's expert knowledge gives him the authority to direct the political program of the workers. Yet, while Menni's authority is enshrined by legal agreement, Netti has only the persuasive power of influence. That is, he must get the workers to agree through their own consent. Netti's communicative authority is evident in the command to "hear me out and don't interrupt me until I have finished," but his organizational authority is limited by the constraint that "after all, the final decision is yours, not mine."<sup>168</sup> Netti's power is rhetorical. He leads the workers to the extent that he can convince them—and he does convince them. But as the young worker points out, he is convinced in large part because "Netti is an engineer, he has made analyses, we have every reason to *believe* him."<sup>169</sup> Thus, the fundamental contradiction remains. If Netti had not "left the ranks of the workers," the workers would not have access to this vital knowledge.<sup>170</sup> In short, the workers are not equipped for self-government, and "what is the use of living and struggling if we are to remain slaves?"<sup>171</sup> Netti may have persuaded the workers, but he acquired the means of persuasion only by having become an intellectual.

Netti responds to this contradiction with a critique of modern science and a prophetic promise of universal proletarian science that will liberate knowledge for the masses. In his view, his uniquely *proletarian* science has equipped him to transcend class divisions through a logic of consciousness that seeks harmonious unity. This proletarian science thus corrects for a narrowly technical, capitalistic science that “has become divorced from life and labor, forgotten its origin and lost sight of its purpose.”<sup>172</sup> The problem is that each branch of the modern sciences as presently practiced is characterized by a “special language which is the privilege of the initiated and serves to exclude everyone else.”<sup>173</sup> The real task for a “proletarian science” is to synthesize the technical and public spheres into a single domain of discourse, to reform science from the labor point of view, and so to overcome the “extravagant” pluralism and “fragmentation” of modern science with a “much simpler, more harmonious, and vital” unified science.<sup>174</sup>

The “scientific socialist” is Netti’s ideal rhetorical persona, and yet Netti cannot fully inhabit and speak from this ideal position, nor is he optimistic that he will ever attain this ideal. He argues that the construction of a proletarian science “cannot be accomplished in a single generation.”<sup>175</sup> Even if he could live to see the future he is working to bring about, he has already been raised and educated in a world of contradictions. Much like Leonid, the Earthling protagonist of *Red Star* who recognizes both a deep affinity and an impassable difference between himself and Martians, Netti represents a transitional form. Like Leonid, Netti will never be an “organic part”<sup>176</sup> of

the socialist society that his grandchildren will take for granted in the communist utopia of *Red Star*, but he continues marching toward the science of the future convinced that “each step on the way will contribute to liberation.”<sup>177</sup>

The epilogue to *Engineer Menni* features Netti leaving his role as an engineer on the Great Project to focus all his energy on “fulfilling his old plan of transforming science so as to make it accessible to the working class.”<sup>178</sup> To that end, he surrounded himself with a “school of cultural revolutionaries” who worked collectively to create an Encyclopedia of Labor, “from which the proletariat drew both guidance and inspiration in its later struggle for ideological unity.”<sup>179</sup> The crowning achievement of Netti’s cultural revolution was “Universal Organizational Science,” which united theoretical and practical methods and integrated “the laws governing nature, social life, and thought that had been discovered by the different disciplines” into “a few simple schemes.”<sup>180</sup> Although Netti did not live to see it, organizational science finally “became a tool in the scientific construction of social life as a whole.”<sup>181</sup>

Netti’s departure from the Great Project mirrors Bogdanov’s decision in 1913, the year *Engineer Menni* was published, to leave his role in party politics and concentrate all his energies on tektology, the name that he chose for his own universal organizational science. Bogdanov was already prepared to publish the first book of *Essays in Tektology*, and he spent the rest of his life trying to collect the cadre of cultural revolutions who would carry this nascent science further—first into every field of

bourgeois science and then into the construction of a new socialist world for a united humanity.

### **Bogdanov's Proletarian Fairy-Tale: *Red Star***

Turning now to *Red Star*, we find the struggle for socialist utopia now almost fully realized. The hero of *Red Star* is the same Russian socialist intellectual we have met as the translator of *Engineer Menni*, only this time narrating his first encounter with the Martians. Leonid has accepted a mission to serve as a “living link” between the cultures of Earth and Mars. In Leonid’s manuscript detailing his trip to Mars, he interrupts his description of the Martian landscape and addresses the reader directly to explain that, however fascinating, “is not essential to the purpose of my narrative. The people and their relationships are what concern me most, and they were the most fantastic and mysterious of all the wonders of this fairy-tale world.”<sup>182</sup> For Bogdanov, like his protagonist Leonid, the most important part of this Martian utopia is not the Martian landscape, its advanced technology, or its beautiful architecture but the relationships among the Martian people, who lived together in a state of perpetual peace and camaraderie. This is all quite interesting, but why does Bogdanov present these relationships in the form of a utopian “fairytale” rather than in the socialist-realist style of his friend Maxim Gorky? Bogdanov provides us with a clue in his chapter on the Children’s Colony:

‘Do you acquaint the children with the past?’ I asked.

‘Of course, and they are very fond of hearing and discussing stories about bygone times. At first we give them fairy tales, beautiful and somewhat



frightening fairy tales about another world that is distant and strange but whose pictures of struggle and violence awaken vague responses in the atavistic depths of the child's instincts. It is not until later, when the child has overcome the remnants of the past in himself, that he learns to grasp the temporal connection more clearly. The images and fairy tales then become real history for him and are transformed into living links in a living chain.'<sup>183</sup>

On Mars, the purpose of providing children with fairytales is to introduce important ideas with real significance in a way that they are prepared to understand. Evidently, Bogdanov considered the Russian working class to be childlike. Should we be offended by this condescending attitude? Perhaps, but for Bogdanov it is clear that not only the toiling masses but all of Earthly humanity is childlike in comparison to the people of Mars, Leonid included. The Martian who organized Leonid's expedition to Mars compares the "two humanities as brothers," explaining that "the younger one is more wasteful with his resources, and prone to serious errors. His childhood was sickly and turbulent, and as he now approaches adolescence he often suffers from convulsive growing pains." Humanity on Earth has only just reached the stage of puberty with all the turmoil that comes with it. On the other hand, Earthlings are not condemned to live forever in the shadow of Mars: "Might he not become a greater and more powerful artist and creator than his elder brother? And in that case, will he not eventually adorn our great Universe even better and more richly? I cannot be certain, but it seems to me that this is what may happen."<sup>184</sup>

### *Martian Unity*

In sharp contrast to Earth, Leonid discovered that people of Mars were united by a common language and culture, a common goal pursued through collective labor, and a

common enemy. On a tour of the Children's Colony where Martian children live and attend school, one of the educators tells Leonid that "our communism seems to be complete; we almost never have to deny the children anything"<sup>185</sup> This is not a case of special treatment. The same condition applies to Martian adults, whose opportunities for consumption are limited only by the speed at which industries can transform to create new products. The results of this stunning technical achievement of a post-scarcity society are born out in Martian communication and culture.

The result of Martian development was a kind of communicative utopia where communication and transportation are rapid, efficient, and universal. High-speed travel between cities is accomplished by "aero-gondola," and antimatter-powered space ships carry their passengers between planets in a matter of months. On Mars, the Institute for Statistics is in constant contact with every individual enterprise, keeping track of inventory and reporting updated forecasts each hour. Every home is equipped with a "communication room" for video calls to anyone on the planet. Martians can even use these devices to watch movies and live theater productions in three dimensions. Voice recordings can easily be converted to written text and then back into audio. The result of all this communication is a deep and abiding mutual understanding among the Martian people. The unity first produced by geography, labor, and cooperation becomes finalized in an almost mystical form of communication in which every Martian comes to understand the common good of all and voluntarily pursues and sacrifices for this whole.

## *Objectivity*

Reflecting on the style of Martian communication, Leonid recalled the seemingly “magical” ease with which statements of objective facts were transformed into consensus policy decisions:

I was struck by the intensely businesslike character of the Martian’s public meetings. Whether they were dealing with scientific topics, questions relating to the organization of work, or even artistic problems, their reports and speeches were extremely concise and brief, their argumentation rigorous and precise. No one ever repeated himself or others. The resolutions of the gatherings were usually adopted unanimously and with incredible swiftness...All of this impressed me almost as a peculiar kind of magic. It was quiet and cold and had no incantations or mystical embellishments, but its [sic] superhuman might made it seem all the more mysterious.<sup>186</sup>

This “businesslike character” of Martian speech is also apparent in their interpersonal communication. When Leonid first boarded the spaceship destined for Mars, he noted that the Martians

never greeted one another, never said goodbye or thank you, never dragged out a conversation just to be polite if its immediate goal had already been reached. At the same time they were very patient when it came to giving explanations, painstakingly adapting themselves to the level of their interlocutor and entering into his psychology, however little it might resemble their own.<sup>187</sup>

However, despite the clarity and matter-of-factness Leonid observed in Martian communication and culture, he often failed to grasp their meaning. This became particularly apparent to him in the case in Martian literature and the arts when he did not have a patient interlocutor to explain. In many cases, the texts he encountered were simply “incomprehensible.” In a society without any obvious conflict between people, Leonid had trouble identifying the feelings expressed by the actors and the dramatic

movement of the narratives: “The speech of the protagonists was so reserved and gentle, their behavior so calm and tactful, their feelings so seldom expressed, that it seemed as though they were trying to avoid evoking any emotional response whatever in the spectator.”<sup>188</sup> Indeed, the characters were so reserved that Leonid felt that they totally lacked the quality of realism. Except for stories depicting the Martian past, he thought that the characters of Martian plays “seemed to be merely philosophers—very much idealized ones at that, in my opinion.”<sup>189</sup>

The communicative style of Bogdanov’s Martian communists in *Red Star* is reminiscent of the earlier engineer Menni’s “disinterested objective attitude toward disputes”<sup>190</sup> and engineer Netti’s affirmation that “our feelings are not important” and that we must suppress strong feelings to “judge objectively.”<sup>191</sup> Bogdanov believed that socialist societies, because they are socially organized, tend to produce socially-organized experience. Thus, he concluded that socialist societies will necessarily be characterized by an objective style of communication. Bogdanov clearly drew his ideas of disinterestedness from the hegemonic discourse of scientific objectivity.<sup>192</sup> In his philosophy, though, Bogdanov defined “objectivity” as nothing but “*socially agreed upon,*” “*socially valid,*” “*socially organized*” experience.<sup>193</sup> Nothing in his definition explains why socially agreed-upon ideas tend toward a repression of feeling. He may simply have presumed that, insofar as agreement is the opposite of conflict, strong emotions are unlikely to arise.

### *Normativity*

The more Martian comradeship develops, the higher the degree of objectivity is attained and the less need there is for explicit rules and codes of discipline. The result is that socialist Mars is a lawless society: that is, the legal system has been abolished. This comes as no great surprise to Leonid, the socialist Earthling, who assumes that the same process will take place on Earth. Indeed, the same can be expected for moral norms and norms of propriety. It is only a matter of time, technical development, and the progressive development of class struggle.

Bogdanov's views on sex and gender norms come to the forefront in his exploration of a post-normative society on Mars. For example, Leonid considers polyamory to be a more rational form of organizing sexual relationships than monogamy. In his view, it is only the normative constraints of bourgeois ideology, and particularly the restrictions that familial norms place on women, that prevent such arrangements from becoming widespread. His view is confirmed on Mars, where he enters in liaisons with multiple Martian women and learns that they each have multiple partners and have even had multiple simultaneous marriages. What's more, Leonid's romantic and sexual attraction to these Martians begins before he knows they are women. As he explains,

I noticed that men and women are more alike in build than is the case among most races on Earth. The women have relatively broad shoulders, while the narrow pelvis and a certain tendency to plumpness in the men make their muscles less prominent and tend to neutralize the physical differences between the sexes. This, however, is mainly true of the most recent epoch, the era of free human evolution, for in the statues dating from as late as the capitalist period the

distinctions are much more obvious. It is evidently the enslavement of women in the home and the feverish struggle for survival on the part of the men which ultimately account for the physical discrepancies between them.<sup>194</sup>

Given these changes in the objective conditions of the sexes, it is unsurprising that the Martian language does not have gendered pronouns, a feature of Earth languages that they believe “is not very important.”<sup>195</sup> Nor are gendered distinctions pronounced in Martian clothing. In general, their clothes were “simple, comfortable, without any superfluous conventional items such as ties or cuffs, it afforded the wearer the maximum freedom of movement,” and while men wore often slightly tighter fitting clothes, this convention was not universally observed; to Leonid it was hardly noticeable.<sup>196</sup>

In some cases, though, we find that conventions, rules, norms continue to exist even under Martian socialism. It is simply that these restrictions are not enforced by coercive codes of law or sectarian allegiance or by authoritarian dictates. They are self-imposed community restrictions based on the ideals of holistic unity that are ultimately apparent to anyone with the capacity for reason. In the case of art, for example, conventions take on a new meaning. According to Enno, Martian artistic conventions are not arbitrary nor are they the imposition of one class on another, but rather are the necessary correlates of a freely chosen artistic idea. Artistic norms are not imposed on the people as a technology of governance. These norms are immanent to the artistic form under construction, and they must be accepted or overcome through interaction with the specific resistances of the given medium. Listening to a poem by Enno, Leonid remarks with surprise that Martian poetry still adheres to “strict rhyme and meter.” Although he

does not find the poetry resulting from these conventions “ugly,” he does worry that they restrict artistic freedom. Leonid explains that many of his comrades on Earth believe that “such form was generated by the tastes of the ruling classes of our society, and that it reflects their fastidiousness and predilection for conventions that restrict the freedom of artistic expression. Whence the conclusion that the poetry of the future, the poetry of the socialist epoch, should abandon and forget such inhibiting rules.”<sup>197</sup> Leonid’s socialist ideal is anarchistic; it is based on total liberation, including the liberation from arbitrary conventions, and “does not rhyme in fact restrict and obstruct the expression of the poetic idea?”<sup>198</sup>

Enno gives two responses that encourage Leonid to transcend his anarchical attitudes to embrace a more fully socialist understanding of the normative ideal. Firstly for Enno, there is nothing about rhythmicality that needs to be overcome because rhythm belongs to the “profound harmony” in all processes of life and thought. Likewise, Enno finds nothing to overcome in rhyme, which expresses the profound relationship between unity and diversity—the “inherent diversity” of people resolved in the unity of love, the unity of work, and the unity of feeling.<sup>199</sup> Secondly, Enno draws an analogy with architecture: “If you want to build a beautiful building, just think how many rules of technology and harmony are going to determine, that is, ‘restrict’ your work!” Similarly, poetic conventions both “obstruct” and “perfect” the poetic expression. Enno concludes by stating a general principle: “You are free to choose your goal, and that is the one and only human freedom. Once you have chosen it, however, you have also selected the

means to attain it.”<sup>200</sup> Art thus has the same form as any ethical or political judgment; once the goal is determined, the only human freedom is to select the ideal method to achieve that goal.

More troublingly, the case of medicine provides the most striking application of normative compulsion in Martian society. At the hospital, Leonid asks the physician, Netti, whether she sees patients suffering from “nervous disorders.” There are none at the hospital, but not because there are no such disorders on Mars. Rather, Netti explains that “special facilities are needed to treat those who may harm themselves or others,” and so patients suffering from psychiatric disorders are placed in special hospitals. “In such cases do you also use coercion on the patients?” asks Leonid, and Netti confirms his suspicion. Coercion is still used in Martian society “to the extent that it is absolutely necessary.”<sup>201</sup> Leonid objects that the incredible diversity of cases must leave room for “arbitrariness” in these decisions, but Netti insists that “if you mean unnecessary, excessive violence, then it is only possible in the case of someone who is mentally ill and needs treatment. A reasonable and conscious person is of course incapable of it.”<sup>202</sup> Here the characters let the subject drop and turn to another topic, so readers are left without the criteria for determining who is sick and who is reasonable or why Netti has such tremendous confidence that healthy Martians are “reasonable and conscious.” Behind this vagueness seems to lie a faith that Martians somehow intuitively know the rules that must be applied in a given case.



The dialogue concerning medicine thus brings to the forefront the question of how order in Mars is generated through a combination of voluntary obedience to rational method and coercive violence to rid itself of “disease” in all its forms. For Leonid, this conversation seems to make clear that even in this utopian world, some use of force is inescapable. For a moment Leonid feels more grounded, telling Netti that this admission “makes our two worlds seem much more alike.” Netti, however, insists that an important difference remains. Not only do Martians use quantitatively much less coercion and violence than Earthlings, but there also exists a qualitative difference between Earth and Mars. Martian culture, she argues, has undergone a qualitative leap:

The chief distinction is that in your world both phenomena [coercion and violence] have been codified as laws and norms of justice and morality which dictate private and public behavior and are a constant source of oppression. Violence exists among us only as a symptom of disease or as the rational act of a rational being. In neither case does it either arise from or result in any privately or socially enforced laws or norms.<sup>203</sup>

When Leonid protests that they clearly still have rules, Netti then clarifies that they have purely *scientific* rules. Unlike fixed codes of action, these scientific rules are adaptive: “Of course even these technical regulations cannot foresee all the cases where force must be used, or its degree, or all the means of applying it. All such things depend on a combination of specific factors.”<sup>204</sup> Once again, we find on Mars the freedom to choose the method perfectly adapted to a particular circumstance. The dialogue suggests that with a sufficient degree of unity, it is possible for a socially organized society to substitute technical-scientific rationality for legal justice and normative morality.

### *Tragic Spirit*

Martian society was profoundly united, but they were united by a common struggle against a common enemy. Unity is constituted against a great Other, a recalcitrant outside, the resistance. This great Other is Nature itself. “True, peace reigns among men,” says Enno, “but there cannot be peace with the natural elements. Even a victory over such a foe can pose a new threat.”<sup>205</sup> Throughout his work we find a profound sensitivity to any limitation on collective strength and any impediment to the common purpose of “the unlimited growth of life.” Even in utopian Mars, we find expressed a relentless commitment to overcome any obstacle to the prosperity of their own society.

We catch a first glimpse of this aspect of Martian society in its affection for tragedy. Marveling at the achievements of Martian civilization and mourning the violence and war that he left behind in Russia, Leonid is shocked to discover that tragedy is one of the favorite genres of Martian literature. Walking with comrade Enno out of the museum and into the garden, he asks quizzically, “What are the themes of your tragedy? Where in your happy, peaceful existence is there any material for it?” Enno is nonplussed. She explains that “the more perfectly ordered and harmonious life is, the more painful are its inevitable dissonances.”<sup>206</sup> The people of Earth are riven by the struggle of individuals, groups, and classes, but on Mars the people have become sensitive to even the slightest contradiction between individuals and the whole. Indeed, “there are contradictions arising from the fact that the individual is so limited in

comparison to the whole; he is powerless fully to fuse with that whole and can neither entirely dissolve himself in it nor embrace it with his consciousness.”<sup>207</sup> Even with the highest degree of unity, the infinite diversity among people can never be known by any one of them, and this gap in the fabric of mutual understanding is like an exposed wound that never heals. Martian communism is not tranquility because it produces the conditions for increased perceptual awareness and sensitivity, the gift and curse to feel every crack in the sidewalk as a chasm.

The primary source of tragedy is the scarcity of natural resources that force the Martians to make tragic choices. Enno explains that the contradiction between Martian society and nature has become increasingly sharp in tandem with the rapid and intensifying exploitation of natural resources. This exploitation of the planet for human ends has not slowed under Martian socialism. On the contrary, it has increased “tenfold” in the socialist epoch. The Martian transition from coal to hydroelectric power came too slowly, and compensatory over-exploitation of the forests “disfigured the planet and worked the climate for decades.” The same kind of problem is now being repeated with Martian mining operations, and the resulting soil damage may lead to food shortages. Thus, the Martians have found that “the tighter our humanity closes ranks to conquer nature, the tighter the elements close theirs to avenge the victory.”<sup>208</sup> Every adaptation, however technically advanced, always sets off a counter reaction by nature. Yet for Martian society, there can be no “capitulation to the elements.” There is no stopping. Enno explains:

It would mean denying the unlimited growth of life and would inevitably imply bringing it to a halt in the very near future. We can triumph as long as we are on the offensive, but if we do not permit our army to grow, we will be besieged on all sides by the elements, and that will in turn weaken faith in our collective strength, in our great common purpose. The meaning of each individual life will vanish together with that faith, because the whole lives in each and every one of us, in each tiny cell of the great organism, and each of us lives through the whole.<sup>209</sup>

To Martian society, retreat or reduction of ambition or consumption of resources would constitute a retreat, and as such would have devastating ideological effects. The only way forward is growth, whether by ingenuity or expansion, science, or conquest.

As a result of their limitless drive to expand, the Martians must decide how to meet the challenges of progressive development under severe ecological constraints and then put forward the colonization of other planets as a possible solution.<sup>xviii</sup> Leonid, researching the Martian colonization program, discovers that there was a recent congress of the “Colonial Group.” In the library archives he finds an audio recording of the sixth meeting, titled “Proposal of Central Institute of Statistics on Mass Colonization. Target Planet - Earth or Venus. Speeches and Proposals of Sterni, Netti, Menni, and Others. Tentative Resolution in Favor of Venus.”<sup>xix</sup> This is the concluding day of the congress, and it contains speeches from the most respected members of the Colonial Group, all

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<sup>xviii</sup> This conundrum clearly struck a chord with contemporary readers. As Stites notes in his introduction to *Red Star*, Anatoly Lunacharky remarked in an early review of *Red Star* that this is the high point of drama in the novel.

<sup>xix</sup> Bogdanov, *Red Star*, 109. Bogdanov made the unfortunate and very confusing choice to use the same names, Netti and Menni, for different characters in *Red Star* and *Engineer Menni*. We learn that the Menni of *Red Star* is a decendent of the first engineer Menni, and he is an equally impressive scientist. There is no hint of a genealogical relation between the two Nettis.

three of whom Leonid met personally and formed relationships with on his voyage to Mars. Until now, however, he has never understood the full scope of the debate or the high stakes of his role as an ambassador between the peoples of Mars and Earth.

As Leonid had already discovered in discussions with comrade Enno, Martian society had faced extraordinary challenges in their natural environment, and every solution was the cause of new crises. Mars was constantly running low on exploitable resources; before the most recent advances in food and energy production they had deforested and disfigured the planet, horribly destabilizing the climate in the following decades. Now, after a period of returned stability and growth, the once revolutionary technologies for creating food and energy without overexploiting the forests are again becoming obsolete. Listening to the congress proceedings, Leonid learns that “given the present growth rate of the population, if the Martians restricted themselves to the exploitation of their own planet, a food shortage would begin to make itself felt within thirty years.”<sup>210</sup> It is possible that new innovations in resource extraction will save the day just as they did during the previous crisis, but these innovations cannot be guaranteed. This is why the Colonial Group is now considering the possibilities of a “mass resettlement” on Earth or Venus.

Sterni—a scientist whose name invokes his stern, calculating, analytical frame of mind—denies there are two options before the congress of the Colonial Group. He is convinced that “no decision is necessary, because the matter was decided long ago by reality itself.”<sup>211</sup> The only path forward is to colonize Earth. Moreover, Sterni warns that

this colonization will not be peaceful. Colonizing Earth will entail the genocidal destruction of Earthly humanity. His conclusion, grim but simple, is that humanity must be consciously destroyed for the benefit of Martian civilization. Unity can be achieved either by peaceful cooperation or by conquest, which are only different means to the same end. Every system aims to organize the universe in its own image, and since the Martians are stronger than the Earthlings, there can only be one outcome. Sterni's cold logic echoes an insight from Bogdanov's organizational point of view: "From the tektological point of view the distinction between 'forced' and 'peaceful' amalgamation is not essential; the difference is only in quantity and intensity of disingressions; but they are always present."<sup>212</sup> In other words, unity is always bought at a price. In argument, some ideas or parts of ideas will be eliminated in the process of reaching a mutual understanding. "Thus, for example, under the amalgamation of political parties or functions some programme and tactical elements are sacrificed in order to escape internal strife."<sup>213</sup> Give and take. In the case of force, the stakes are higher and so are the costs. In a war of conquest, some people or peoples will be eliminated in the process of creating a unified state. The price of unity is set by the real divergence between two systems, be they worlds or worldviews. The greater the divergence, the more we must pay for integration. Sterni concludes, "there is but one Life in the Universe, and it will be enriched rather than impoverished if it *our* socialism rather than the distant, semi-barbaric Earthly variant that is allowed to develop, for thanks to its unbroken evolution and boundless potential, our life is infinitely more harmonious."<sup>214</sup>

Netti—a Martian physician, Sterni’s wife, and Leonid’s lover—replies. “‘There is but one Life in the Universe,’ says Sterni. And yet what does he propose to us? That we exterminate an entire individual type of life, a type we can never resurrect or replace.”<sup>215</sup> She expresses a profound grief at the idea of this loss, and she insists upon a logic of love, not war. Indeed, she concludes her speech with the declaration that “love is the highest expression of intelligence!”<sup>216</sup> What are we to make of Bogdanov’s choice to resolve this story with a declaration of love triumphant over a declaration of war? Is it sentimentality? Given the passage quoted earlier from *Essays in Tektology*, would Bogdanov repudiate this lesson from *Red Star* as inadequate and unfounded? Is it an unjustifiable substitution of morality for logic? No: Netti’s declaration of love is not mere sentimentality nor is it a defense of moral values. The high “intelligence” of love can also be given tektological foundations. For Netti, it is self-evident that the “a lower stage is worth sacrificing for the sake of a higher one, the weak must yield to the strong,”<sup>217</sup> and in this way she mirrors the cold logic of Sterni.

Yet she is equally convinced that the peoples of Earth are not “simply weaker and lower than ours—they are *different*.”<sup>218</sup> Netti reminds her comrades that even if broad divergence often leads to more intense conflict, the successful resolution of these conflicts also reaches greater heights of perfection. As Bogdanov puts it, “The weaker is the divergence, the less energetic the reconstruction, and the less able it is to produce new organizational combination and adaptations.”<sup>219</sup> The peoples of Earth are living in a militaristic age, but this is not our essence; our conflicts are the predictable result of our

tremendous diversity, and when we have drawn together and found unity in this diversity, it will be richer, more complex, more harmonious. Thus, rather than destroying the unique and irreplaceable gift of Earthly humanity, she argues that Martians “must lay the foundations for our future alliance with the people of Earth.” She concludes, “as to our own difficulties and dangers, we shall have to overcome them by other means,” whether by technical innovation, colonization of Venus, or checking the birth rate. “The union of our worlds will repay us endlessly for this sacrifice.”<sup>220</sup>

### **Summing Up**

Bogdanov knew that the road to socialist society would be long and difficult. In both *Red Star* and *Engineer Menni*, he depicts the arduous journey of Earth and the comparative ease of the transition period on Mars. Even when Mars has nearly completed their communist society, Earth remains deeply divided in its social groups, its classes, and hundreds of warring nations. However, Bogdanov’s novels hold out the promise that a future socialism on Earth will be richer and more diverse for all the pain and suffering that capitalist anarchy and the remnants of feudal authority cause in the present. We will form an intricate harmony, more beautiful and more powerful than anything else known to existence.

The first lesson of *Engineer Menni* is patience. Even by the conclusion of the novel, Martian communism remains a long way off on the horizon. Bogdanov brings us to the precipice, the moment of systemic crisis in state capitalism and the transformation into an early form of socialism. The earliest symptom of transformation is the creation of



a foundation for state capitalism through the nationalization of land, and this occurs in the first chapter of the book. This accomplishment, which sets the stage for everything that comes after it, is still considered a distant prospect on Earth. Indeed, Bogdanov identifies this as a conscious point of class struggle on Earth, whereas on Mars the transition is accomplished with a bourgeois-proletarian coalition. By explaining this difference, Bogdanov both highlights an essential point of the socialist program for a broad public and contributes to the analysis of this program within extant conditions. To an extent, Bogdanov's narrative position can even be read as a critique of the *Erfurt Program* as utopian.

The second lesson of *Engineer Menni* is that the bourgeois technical intelligentsia still have a progressive role to play in history. Surveying Russia, Bogdanov saw that the nation was under-industrialized when compared to its Western European peers, and he also saw that it was capitalism that successfully brought about this explosion of new technology. Today, we might still compare the condition of under-development in Russia of 1913 to that of any number of developing nations slowly entering the period of industrialism through the processes of globalization, in which offshoring and de-industrialization in the Global North has resulted in transferring those industries to areas of the Global South. This process is not being undertaken in the name of the international proletariat, and its form often contradicts their interests, but industrialization has nonetheless led to progressive growth in unionization, wages, and levels of taxation. We will need to continue making difficult compromises even as we

struggle for new modes of governance, but in seeking alliances in this struggle, we would be wise to look for allies among the technical professions rather than the representatives of finance.

The third lesson of *Engineer Menni* is that cultural revolution is necessary to overcome the horizon of unintelligibility that separates the bourgeois and working classes. Through dialogues between Menni and Netti, we see Menni struggling to understand Netti's logic, despite its clarity and simplicity. It is not that the argument is obscure but that it belongs to a different way of life. The attempt to translate a new ideology into one's existing vocabulary may feel a lot like attempting to translate an alien language. It is not merely a problem of matching different words to the same object; rather, the basic ideas of this alien culture articulate new objects that require new words. This is dramatized in *Red Star* as well, where Leonid's struggle to grasp Martian culture—again, despite the apparent simplicity and clarity of their language—precipitates a mental breakdown and the onset of hallucinations which take him months to recover from. For radical intellectuals who are accustomed to individualism in their living experience, the transition to a form of collective consciousness may still be almost unthinkable. Given the turn toward emphasizing pluralism, contextualism, and the contingency of practice in contemporary science studies, a movement for the unity of science has never seemed farther from reality, even as research in many fields takes on increasingly collaborative forms since Bogdanov's time. *Engineer Menni* attempts to

prepare the way for an encounter with the unthinkable collective intelligence of a proletarian culture.

*Red Star* has three lessons. First, the struggle for unity is not a struggle for homogeneity but a struggle for freedom. We do not want a unity that comes at the expense of individuality, but a diverse individuality that nonetheless desires and thinks from the perspective of the united collective. Second, the production of unity is the production of objectivity. When we act as one and we feel as one, then we will know as one. Third, the best of all possible worlds still contains elements of tragedy, as the struggle between humans and nature is an inevitable feature of existence. Life is robbery, and robbery has consequences. However, this does not mean we should be quick to destroy when we can instead unite. The possibility of building alliances between Mars and Earth even suggests interspecies alliances, though this possibility was only vaguely perceived by Bogdanov.

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<sup>1</sup> Bogdanov uses the imagery of “skeletons” figuratively in *Engineer Menni* but also uses the term “skeletal forms” as a well-defined concept in *Essays in Tektology*.

<sup>2</sup> Rose, “Dreaming,” 125.

<sup>3</sup> Greenfield, “Revenant,” 629. Greenfield make the interesting observation that Bogdanov chose the names Ambrosia and Nectar for the first two canals built by engineer Menni because these are the “food and drink of immortality in Greek mythology,” suggesting that “the projects to replenish the heavenly body [with Menni’s canals] and the human body [in *Red Star*’s physiological collectivism] are analogous.”

<sup>4</sup> Adams, ““Red Star,”” 3. Adams argues that the originality of Bogdanov’s utopian novels, and indeed his entire philosophy and systems theory, has been much overstated. Adams points out that all the major thematic elements of Bogdanov’s Martian world can be found in literature and reflection on literature by H. G. Wells. Bogdanov merely presents a Marxist rehash of the already standard model for interplanetary utopia. I have no interest in disputing the originality of Bogdanov within the history of the science fiction genre. I am more interested in exploring how Bogdanov used the narrative form to provide a dramatic exposition and justification of his philosophical and scientific work to a popular audience.

<sup>5</sup> Adams, 7.

<sup>6</sup> Bogdanov, *Red Star*, 166. *Engineer Menni* is included in the collection *Red Star: The First Bolshevik Utopia*, edited by Loren Graham and Richard Stites (trans. Charles Rougle).

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- <sup>7</sup> Bogdanov, 145.  
<sup>8</sup> Bogdanov, 145.  
<sup>9</sup> Bogdanov, 145.  
<sup>10</sup> Bogdanov, 146.  
<sup>11</sup> Bogdanov, 145–146.  
<sup>12</sup> Bogdanov, 150.  
<sup>13</sup> Bogdanov, 153.  
<sup>14</sup> Bogdanov, *Art*, 117.  
<sup>15</sup> Bogdanov, *Red Star*, 164.  
<sup>16</sup> Bogdanov, 155. This attitude could be compared to that of the great representative and founder of the bourgeois republic in the US, John Adams, who famously said that “Facts are stubborn things; and whatever may be our wishes, our inclinations, or the dictates of our passion, they cannot alter the state of facts and evidence.”  
<sup>17</sup> Bogdanov, 157.  
<sup>18</sup> Bogdanov, 158.  
<sup>19</sup> Bogdanov, 159.  
<sup>20</sup> Bogdanov, 159.  
<sup>21</sup> Bogdanov, 162.  
<sup>22</sup> Bogdanov, 162.  
<sup>23</sup> Bogdanov, 163.  
<sup>24</sup> Bogdanov, 165.  
<sup>25</sup> Bogdanov, 168.  
<sup>26</sup> Bogdanov, 170.  
<sup>27</sup> Bogdanov, 172.  
<sup>28</sup> Bogdanov, 175.  
<sup>29</sup> Bogdanov, 176.  
<sup>30</sup> Bogdanov, 178.  
<sup>31</sup> Bogdanov, 178.  
<sup>32</sup> Bogdanov, 180.  
<sup>33</sup> Bogdanov, 183.  
<sup>34</sup> Bogdanov, 183.  
<sup>35</sup> Bogdanov, 186.  
<sup>36</sup> Bogdanov, 186.  
<sup>37</sup> Bogdanov, 186.  
<sup>38</sup> Bogdanov, 188.  
<sup>39</sup> Bogdanov, 192.  
<sup>40</sup> Bogdanov, 193.  
<sup>41</sup> Bogdanov, 195.  
<sup>42</sup> Bogdanov, 195.  
<sup>43</sup> Bogdanov, 198.  
<sup>44</sup> Bogdanov, 199.  
<sup>45</sup> Bogdanov, 201.  
<sup>46</sup> Bogdanov, 202.  
<sup>47</sup> Bogdanov, 205.  
<sup>48</sup> Bogdanov, 209.  
<sup>49</sup> Bogdanov, 208.  
<sup>50</sup> Bogdanov, 211.  
<sup>51</sup> Bogdanov, 212.  
<sup>52</sup> Bogdanov, 214.  
<sup>53</sup> Bogdanov, 220.

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- <sup>54</sup> Bogdanov, 221.
- <sup>55</sup> Bogdanov, 222.
- <sup>56</sup> Bogdanov, 224.
- <sup>57</sup> Bogdanov, 225.
- <sup>58</sup> Bogdanov, 226. Bogdanov argued there is no experience without difference, or more precisely, without the “vital differential” between assimilation and disassimilation in a system. The system is either increasing its total sum of elements or decreasing its total sum. When it is balanced in equilibrium, there is no experience because the mutually opposing processes create interference. Through substitution, we can replace the psychical content of experience with the physical, but it is unclear to what extent the vital difference is comparable to the semantic difference between terms. We only know that insofar as communication entails physiological processes, “an utterance is conditioned by what Avenarius calls the ‘vital-differential’, i.e. the difference between ‘nourishment’ and ‘work’ – in part or in general – of the system” (Bogdanov, *Empiriomonism*, 49).
- <sup>59</sup> Bogdanov, 226.
- <sup>60</sup> Bogdanov, 227.
- <sup>61</sup> Bogdanov, 228.
- <sup>62</sup> Bogdanov, 230.
- <sup>63</sup> Bogdanov, 231.
- <sup>64</sup> Bogdanov, 232.
- <sup>65</sup> Bogdanov, 233.
- <sup>66</sup> Bogdanov, 166.
- <sup>67</sup> Bogdanov, 146.
- <sup>68</sup> Bogdanov, 166.
- <sup>69</sup> Bogdanov, 166.
- <sup>70</sup> Bogdanov, 166–167.
- <sup>71</sup> Bogdanov, 148.
- <sup>72</sup> Lenin, *Imperialism*.
- <sup>73</sup> Bogdanov, *Red Star*, 179.
- <sup>74</sup> Bogdanov, 181.
- <sup>75</sup> Bogdanov, *New World*, 46.
- <sup>76</sup> Bogdanov, *Red Star*, 212. Marx often used the imagery of the vampire as a potent metaphor for parasitic exploitation and juxtaposed the “dead labor” of money capital to the “living labor” of working people.
- <sup>77</sup> Bogdanov, 212.
- <sup>78</sup> Indeed, Bogdanov’s tektology distinguishes and clarifies the meaning of these figures such that powers attributed to vampirism in *Engineer Menni* are reclassified as the power of skeletons in his later theoretical work.
- <sup>79</sup> Bogdanov, 175.
- <sup>80</sup> Marx, *Capital Volume I*, 416. Here, Marx quotes from Engels’ earlier description of the conditions of the British working class.
- <sup>81</sup> Bogdanov, *Essays*, 186.
- <sup>82</sup> Bogdanov, 189.
- <sup>83</sup> Bogdanov, 189.
- <sup>84</sup> Bogdanov, 195.
- <sup>85</sup> Bogdanov, 195.
- <sup>86</sup> Bogdanov, *Red Star*, 213.
- <sup>87</sup> Bogdanov, *Essays*, 197.
- <sup>88</sup> Bogdanov, 199.
- <sup>89</sup> Bogdanov, 201.
- <sup>90</sup> Bogdanov, *Red Star*, 164.
- <sup>91</sup> Bogdanov, 164.

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- <sup>92</sup> Bogdanov, 165.
- <sup>93</sup> Bogdanov, 165–166.
- <sup>94</sup> Bogdanov, 166.
- <sup>95</sup> Bogdanov, 165. Similar arguments about the necessity of nationalization have been made in recent years due to the challenging environmental conditions posed by the climate crisis and the unprecedented scale of capital investment that will be required for a sustainable transition. See, for example, *Economic Planning in An Age of Climate Crisis* by Cockshott, Dapprich, and Cotrell.
- <sup>96</sup> Bogdanov, 167.
- <sup>97</sup> Bogdanov, 168.
- <sup>98</sup> Bogdanov, 173.
- <sup>99</sup> Bogdanov, 156.
- <sup>100</sup> Bogdanov, 156.
- <sup>101</sup> Bogdanov, 168.
- <sup>102</sup> Bogdanov, 170.
- <sup>103</sup> Bogdanov, 201.
- <sup>104</sup> Bogdanov, 201.
- <sup>105</sup> Richard Weaver’s concept of a “God term” is useful in describing the rhetorical power of the hierarchical form taken by ideological elements within a given worldview. For Bogdanov, the ideological elements of a worldview begin from the most concrete and ascend a ladder of generalizing abstractions until they reach the peak, ideally in a single concept or principle that structures the whole.
- <sup>106</sup> Bogdanov, 215.
- <sup>107</sup> Bogdanov, 213.
- <sup>108</sup> Bogdanov, 218.
- <sup>109</sup> Bogdanov, 219.
- <sup>110</sup> Bogdanov, 217.
- <sup>111</sup> Bogdanov, 220.
- <sup>112</sup> Bogdanov, 213.
- <sup>113</sup> Bogdanov, 220.
- <sup>114</sup> Bogdanov, 221.
- <sup>115</sup> Stites, “Fantasy,” 12.
- <sup>116</sup> Illyenkov, *Leninist*, n.p. It should be noted, however, that Illyenkov’s interpretation came in the context of highly technocratic modes of governance in the Soviet Union that were wrapped in the Orwellian language of freedom, openness, and transparency—and at the same time in the language of the new science of cybernetics. As Slava Gerovitch explained in his study of Soviet cybernetics, the popularity and state support for cybernetics in the early 1970s transformed the popular discourse from “newspeak” into “cyberspeak,” but as it turned out, cyberspeak was only a new form of newspeak.
- <sup>117</sup> Stites, “Fantasy,” 15.
- <sup>118</sup> Graham, “Bogdanov’s Inner Message” in *Red Star*, 252.
- <sup>119</sup> Graham, 252.
- <sup>120</sup> Lecourt, “Appendix,” 141.
- <sup>121</sup> Lecourt, 140.
- <sup>122</sup> Lecourt, 143.
- <sup>123</sup> Biggart, “Alexander Bogdanov and the Theory,” 265–82; Sochor, “On Intellectuals,” 283–92.
- <sup>124</sup> Brandist, 35. Brandist writes that “Bogdanov had distinguished himself by a particularly strong distrust of spontaneous worker self-activity, which he voiced at the Third Party Congress in 1905, and which resulted in a particularly suspicious attitude towards the appearance of the soviets later in the year.”
- <sup>125</sup> Brandist, 95.
- <sup>126</sup> Biggart, “Aleksander Bogdanov’s,” 13.
- <sup>127</sup> Bogdanov, *Red Star*, 204.
- <sup>128</sup> Bogdanov, 204.

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<sup>129</sup> The term “liquidation” has various connotations within socialist theory and history. Lenin used “liquidationism” to refer to the abandonment of the theory and practice of the vanguard party. Stalin famously spoke of “liquidating the kulaks,” by which he meant the elimination of the class-position of the kulak—that is, the independent wealthy peasant.

<sup>130</sup> Bogdanov, 182.

<sup>131</sup> Bogdanov, 174.

<sup>132</sup> Bogdanov, 183.

<sup>133</sup> Bogdanov, 185.

<sup>134</sup> Bogdanov, 183.

<sup>135</sup> Bogdanov, 196.

<sup>136</sup> Bogdanov, 194.

<sup>137</sup> Bogdanov, 195.

<sup>138</sup> Bogdanov, 196.

<sup>139</sup> Bogdanov, 195–196.

<sup>140</sup> Bogdanov, 195.

<sup>141</sup> Bogdanov, 195.

<sup>142</sup> Bogdanov, 196.

<sup>143</sup> Bogdanov, 197.

<sup>144</sup> Bogdanov, 196.

<sup>145</sup> This provides an interesting contrast with the textbook view of the organistic/systems perspective as described in organizational communication theory. Compare, for example, with Miller’s *Organizational Communication*: “This systems or organismic metaphor views organizations not as self-contained and self-sufficient machines but as complex organisms that must interact with their environment to survive” (p. 59). Bogdanov certainly sees the organism as needing to adapt, but he is more interested in emphasizing the internally driven, or what might be called the “autopoetic,” aspect of organisms and organic organizations.

<sup>146</sup> Bogdanov, 197.

<sup>147</sup> Bogdanov, 197.

<sup>148</sup> Bogdanov, 197.

<sup>149</sup> Bogdanov, 201.

<sup>150</sup> Bogdanov, 195.

<sup>151</sup> Bogdanov, 202.

<sup>152</sup> Bogdanov, 202.

<sup>153</sup> Bogdanov, 203.

<sup>154</sup> Bogdanov, 203.

<sup>155</sup> Bogdanov, 203.

<sup>156</sup> Bogdanov, 203.

<sup>157</sup> Bogdanov, 204.

<sup>158</sup> Note that Bogdanov describes the binary of spirit and matter as a “dualism” rather than a “dialectic,” whereas it is clear he would not view his terminological shift to activity-resistance to be a dualism. Everything is activity-resistance, and the choice of the term “activity” or “resistance” depends only on point of view. Insofar as materialism or idealism takes an ontological form, in which they assert the singular and non-perspectival nature of the substance of things, Bogdanov’s critique clearly applies. However, it is also clear that dialectical materialism, insofar as it insists upon the dynamic interrelationships of thought and the real, has much more in common with his own view.

<sup>159</sup> Bogdanov, 203.

<sup>160</sup> Bogdanov, 203.

<sup>161</sup> Bogdanov, 203.

<sup>162</sup> Bogdanov, 204.

<sup>163</sup> Bogdanov, 204.

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- <sup>164</sup> Bogdanov, 180.  
<sup>165</sup> Bogdanov, 180.  
<sup>166</sup> Bogdanov, 197.  
<sup>167</sup> Bogdanov, 186.  
<sup>168</sup> Bogdanov, 183.  
<sup>169</sup> Bogdanov, 186.  
<sup>170</sup> Bogdanov, 186.  
<sup>171</sup> Bogdanov, 186.  
<sup>172</sup> Bogdanov, 187.  
<sup>173</sup> Bogdanov, 187.  
<sup>174</sup> Bogdanov, 187.  
<sup>175</sup> Bogdanov, 187.  
<sup>176</sup> Bogdanov, 75.  
<sup>177</sup> Bogdanov, 187.  
<sup>178</sup> Bogdanov, 232.  
<sup>179</sup> Bogdanov, 232.  
<sup>180</sup> Bogdanov, 232.  
<sup>181</sup> Bogdanov, 232.  
<sup>182</sup> Bogdanov, 60.  
<sup>183</sup> Bogdanov, 70.  
<sup>184</sup> Bogdanov, 57.  
<sup>185</sup> Bogdanov, 70.  
<sup>186</sup> Bogdanov, 87.  
<sup>187</sup> Bogdanov, 47.  
<sup>188</sup> Bogdanov, 87.  
<sup>189</sup> Bogdanov, 87.  
<sup>190</sup> Bogdanov, 168.  
<sup>191</sup> Bogdanov, 183.  
<sup>192</sup> Whether natural and/or social scientists should be “disinterested” has been challenged in numerous ways since the 1970s at least with the growth of social studies of science. However, the question is certainly not resolved, and there continue to be ongoing debates on the value of disinterest: as an attitude, as a form of relationship to research subjects (particularly given the problems raised by racial and sexual inequality), and finally as a material constraint on potential conflicts of interest. For example, see Nzingaa et al., “Should Social”; and Ziman, “Continuing Need.”  
<sup>193</sup> Bogdanov, *Philosophy*, 212.  
<sup>194</sup> Bogdanov, *Red Star*, 76.  
<sup>195</sup> Bogdanov, 48.  
<sup>196</sup> Bogdanov, 47.  
<sup>197</sup> Bogdanov, 78  
<sup>198</sup> Bogdanov, 78  
<sup>199</sup> Bogdanov, 78.  
<sup>200</sup> Bogdanov, 78.  
<sup>201</sup> Bogdanov, 82.  
<sup>202</sup> Bogdanov, 83.  
<sup>203</sup> Bogdanov, 82.  
<sup>204</sup> Bogdanov, 82  
<sup>205</sup> Bogdanov, 79.  
<sup>206</sup> Bogdanov, 80.  
<sup>207</sup> Bogdanov, 80.  
<sup>208</sup> Bogdanov, 79.



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- <sup>209</sup> Bogdanov, 80.  
<sup>210</sup> Bogdanov, 109.  
<sup>211</sup> Bogdanov, 110.  
<sup>212</sup> Bogdanov, *Essays*, 149.  
<sup>213</sup> Bogdanov, 149.  
<sup>214</sup> Bogdanov, *Red Star*, 116.  
<sup>215</sup> Bogdanov, 116.  
<sup>216</sup> Bogdanov, 119.  
<sup>217</sup> Bogdanov, 117.  
<sup>218</sup> Bogdanov, 117.  
<sup>219</sup> Bogdanov, *Essays*, 148.  
<sup>220</sup> Bogdanov, *Red Star*, 119.

## CHAPTER V

### CONCLUSIONS

Everything and nothing has changed since Bogdanov wrote his works of socialist systems theory and science fiction in the early twentieth century. If Bogdanov was right to think that unified science could only really take hold in a unified world, then the prospects for a unified science today seem a long way off. Moreover, as Harmke Kamminga and Geert Somsen observe in their introduction to *Pursuing the Unity of Science*, the large body of work on disunity, pluralism, and context that has predominated in the philosophy of science since the 1990s has at least reshaped our basic assumptions about what scientists do. Even while some philosophers are searching for unity once again, “it is unlikely that the notions of universal scientific method and the fundamental sameness of all things scientific will return in an unqualified manner.”<sup>1</sup>

Still, efforts are being made. I was fascinated to see that since 2018, the European Commission has contributed just shy of two million euros to the Metaphysical Unity of Science project based in the UK, with objectives of determining the “criteria for scientific unification” and conducting case studies of unification efforts, particularly in the overlaps between biology and chemistry.<sup>2</sup> Several organizations, institutes, and academic societies also remain committed to systems theoretical inquiry, whether following Wiener’s cybernetics into the world of artificial intelligence,<sup>3</sup> Bertalanffy’s general systems theory into COVID-19 modeling,<sup>4</sup> or the more recent models of complex adaptive systems. We continue to search for order in the chaos. Perhaps, as

Kenneth Burke suggested, it is simply in our symbolic nature to be “goaded by perfection.”

Bogdanov’s fictional world speaks to our present conditions as well. The successes of Martian industrial development resulted in a difficult struggle against climate change. The Martians even considered colonizing Earth in search of new resources. Today it is we Earthlings who dream of traveling, colonizing Mars to escape the perils of a warming planet. More than a dream, interplanetary travel has gone from fantasy to reality, though it is hardly a feature of everyday life, and if the Earthling dreams of Martian living are made manifest, it will be a flight off-planet for the few as it becomes uninhabitable for the many. The gender-fluid transformations that made the men and women of Mars nearly indistinguishable have also become an increasingly common feature of life in the twenty-first century as the struggle for transgender rights has risen to prominence in the US over the past decade. At the same time, the sexual division of labor and oppression of women remains a deeply entrenched feature of daily life. Despite valiant efforts by several generations of activists in the women's movement, we have yet to overcome the material realities of gender-based discrimination.

The rise of machines and the progress toward full automation has been remarkable. Bogdanov did not live to see the first computers, but he would not have been surprised to see the creation of a general-purpose machine resulting from cybernetics. This was absolutely in keeping with his vision of the future. On the other hand, he would have been surprised at the degree to which computer technology has failed to liberate working people by unlocking our own generalizing capacities. Despite

decades of peer-to-peer activism that attempts to harness the collective potential of free culture, and evidence that p2p commons can be both liberating and highly productive, networked social media and big data have instead given rise to an era of unsurpassed surveillance and control. Indeed, the politics of cybernetics are seen today as the logic of control that eliminates any potential for rupture and change. Economist Yanis Varoufakis and political theorist Jodi Dean have both argued that today, we are faced with what amounts to a choice between some version of socialism and a dystopian techno-feudalism.

Internationally, the horrific militarism that characterized Bogdanov's experience in WWI, as well as the Second World War he did not live to see, has not yet manifested itself again in a third world war, despite ominous predictions that it is just around the corner. Instead, we have seen several decades of low-intensity hybrid warfare against terrorist organizations rather than state actors. Indeed, it was not until 2022 that a real war between states returned to the European theater. Since the fall of socialism in the Soviet Union and China, no new political ideology has risen to challenge the present order. However, since the 2010s we have seen both eco-socialist and eco-fascist politics emerge as the systemic contradictions of the capitalist order accumulate and liberal governments prove incapable of taking on the massive responsibilities of state-led green industrialization. This old-new world we are entering has forced Francis Fukuyama to rescind his famous declaration of the "end of history." In other words, the political horizon has not changed.

In the 1990s, “Feli Rao”—that is, the financial oligarchy—lived in New York and the city was booming, overflowing with unbelievable sums of money. The deregulation of Wall Street that took place under Reagan in the 1980s had turned on the firehose, and reckless investment led to both rapid growth and a series of increasingly severe economic crises. The dot-com boom of the early internet years has matured into a massive technology industry with companies such as Amazon, Apple, Google, and Facebook dominating global markets. On the other hand, the term “too big to fail,” first applied to the big banks in the United States in 1984, has become part of the popular lexicon. We learned what “too big to fail” really means in the recessions of the early 1990s, the early 2000s, the Great Recession of 2009, and most recently the so-called COVID-19 recession of 2020.<sup>5</sup> When the economy crashes, the masses suffer while the rich get richer.<sup>6</sup>

There is widespread dissatisfaction with the US political system, which catapulted a clownish entertainer-cum-oligarch into the presidency in 2016 on the vague promise of clearing out “the swamp” of corrupt Washington insiders, lobbyists, and bureaucrats. Promise unfulfilled, a standard-issue corrupt insider was returned to the White House in 2020 on the equally vague promise to restore democracy. As of May 2023, only 16% of US citizens polled by Gallup say they approve of the job done by the US Congress, and it is easy to see why.<sup>7</sup> There is a constant deadlock, there is no articulate vision for a transformative political project, and nobody keeps their promises. As the world grows warmer and the climate crisis is beating down our door, the Paris Accords are not worth the paper they are printed on, and our titans of technology are

focused on the mission to colonize Mars. Internationally, we remain myopically focused on territorial disputes over spheres of influence in Europe and South Asia and are always prepared for a bloodletting. As McKenzie Wark put it in a 2015 speech, “this civilization is over. And everybody knows it.”<sup>8</sup>

Meanwhile, it appears that Engineer Menni lives in China. Consider the “peculiar kind of magic” that Leonid described in the world of *Red Star*, where “if a meeting of experts in some field decided that it was necessary to organize a scientific undertaking...hundreds and thousands of new workers were flown in, and in a few days or weeks the whole project was completed and the workers had disappeared heaven knows where.”<sup>9</sup> In our world, the only comparable marvels of engineering have been accomplished by the Chinese Communist Party. As countless news outlets reported in 2020, China managed to build a “645,000-square-foot makeshift medical facility...equipped with 1,000 beds, several isolation wards, and 30 intensive care units” in just ten days during the first wave of the COVID-19 pandemic.<sup>10</sup> The CCP is infamous for the technocratic rule it has exercised over the country since the death of Mao Tse Tung and the end of the Great Proletarian Cultural Revolution in 1976. Among the fourth generation of CCP leaders that rose to prominence in the 1980s, a full third had a background in engineering.<sup>11</sup>

Of course, the Feli Raos of the world also live in Hong Kong and Shanghai and Beijing, all three of which rank among the top ten financial centers of the world. Unlike Engineer Menni, the technocrats in China did not need to manage a complicated political process of land nationalization because this had already been accomplished after the

1949 Revolution, which created a system of rural cooperatives. However, much as Menni predicted that cooperatives would ultimately be taken over by financial interests on Mars, the rural cooperatives in China have given way to market-driven land nationalization during the post-Mao reform period.<sup>12</sup> Technocratic politicians have proven that they are not above ideology, nor are they capable of resolving class conflicts. However, there are real differences between the interests of the party technocrats and the Chinese billionaire class. Much as Menni became notorious on Mars for his investigations into the graft of financiers after his return to project leadership, President Xi has become notorious for his anti-corruption drive in China, which has delivered serious jail time for members of the financial elite who engaged in bribery and graft.

Xi's anti-corruption campaign has also been used to prosecute those who have dared to stray too far from the party line.<sup>13</sup> Indeed, unlike Menni, who was slowly persuaded by his son Netti to accept more socialist oriented politics, Xi's government has shut down ideological deviations to the left. For example, Bo Xilai was the Party Secretary of the Municipality of Chongqing when he gained national attention for "the experiment of the 'Chongqing Model,' which promoted a strategy of economic development based on the growth of state-owned enterprises and egalitarian income distribution."<sup>14</sup> As Minqi Li explains, the "Chongqing Model" represented a challenge to the ideology of reform and opening up, i.e., liberalization and privatization. Therefore, the CCP leadership moved swiftly to eliminate this deviation: "On September 28, 2012, the Chinese Communist Party's Politburo adopted a decision to expel Bo Xilai from the Party, accusing Bo of accepting bribery, corruption, and abuse of power," and by June,

“Bo Xilai was sentenced to life imprisonment.”<sup>15</sup> For the time being, the CCP has clearly reaffirmed its commitment to “putting production in command” as Maoists say—that is, embracing the path of market-led bourgeois development.

Where in this mess are our Engineer Nettis? From the 1960s through the 1980s, Soviet scientists attempted to computerize and decentralize the planning of the Soviet economy. Under the All-State Automated System of Management, the dream of a fully automated self-governing society, cybernetics in the service of communism, was reborn. Around the same time, in the early 1970s the management cyberneticist Stafford Beer was invited by the government of Salvador Allende to undertake an innovative project for a democratically planned economic system in Chile. Much like the network of constantly updated information systems depicted in *Red Star*, these cybernetic socialists hoped to link the means of production to an electronic infrastructure of citizen feedback and participation. As documented by Eden Medina in *Cybernetic Revolutionaries* and Ben Peters in *How Not to Network a Nation*, both projects failed. According to Peters, the Soviet cyberneticians failed because they operated too much like capitalists, whereas ironically, the internet developed in the US was run by the state in a top-down fashion. In Chile, the Allende government that sponsored Beer’s project was overthrown in a fascist coup by US-backed dictator Augusto Pinochet in 1973.

Yet the dream lives on. In the 1990s, Paul Cockshott and Allin Cottrell outlined a system of cybernetic socialist economic planning in their book *Towards a New Socialism*, and this model has been elaborated on considerably over the past thirty years. In the early 2000s, a forum in *Science and Society* considered more precisely what



structures are required for democratic planning,<sup>16</sup> and as recently as 2021, Samothrakis developed on the “tradition of Marx, Leontief, Beer, and Cockshott” to propose a method of automated planning using artificial intelligence.<sup>17</sup> In 2022, Cockshott and Cottrell collaborated with J. P. Dapprich to update their analysis with specifications designed to meet the needs of the climate crisis. However, without an organized socialist political force, this most recent crop of cybernetic socialists has been unable to attempt these projects in practice. Until then, we are still stuck, as Marx put it, “writing recipes for cookshops of the future.”

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<sup>1</sup> Kamminga and Somsen, *Pursuing*, 2.

<sup>2</sup> See <https://cordis.europa.eu/project/id/771509>

<sup>3</sup> “Return of Cybernetics,” *Nature Machine Intelligence* 1, no. 9 (2019): 385. <https://doi.org/10.1038/s42256-019-0100-x>

<sup>4</sup> Djordjevic, “Systems,” 291–314.

<sup>5</sup> US Congressman Stewart McKinny is attributed with popularizing the term “too big to fail,” but several prominent economists such as Ben Bernanke, former chair of the Federal Reserve, have attempted to give definitions for the term and analyze the range of consequences on the economic system.

<sup>6</sup> Oxfam International, “Ten Richest Men Double Their Fortunes in Pandemic While Incomes Of 99 Percent of Humanity Fall,” January, 2020, <https://www.oxfam.org/en/press-releases/ten-richest-men-double-their-fortunes-pandemic-while-incomes-99-percent-humanity>. Oxfam reports that “the world’s ten richest men more than doubled their fortunes from \$700 billion to \$1.5 trillion—at a rate of \$15,000 per second or \$1.3 billion a day—during the first two years of a pandemic that has seen the incomes of 99 percent of humanity fall and over 160 million more people forced into poverty.”

<sup>7</sup> Gallup, “Congress and the Public,” accessed May 2023, <https://news.gallup.com/poll/1600/congress-public.aspx>.

<sup>8</sup> McKenzie Wark, “This Civilization is Over. And everybody knows it,” April, 21, 2015, <https://www.versobooks.com/blogs/news/1950-this-civilization-is-over-and-everybody-knows-it>. This quote is from Wark’s speech at the book launch for *Molecular Red*, the text that first introduced me to the marvelous ideas of Alexander Bogdanov.

<sup>9</sup> Bogdanov, *Red Star*, 87.

<sup>10</sup> Sophia Ankel, “A Construction Expert Broke Down How China Built an Emergency Hospital to Treat Wuhan Coronavirus Patients in Just 10 Days,” *Business Insider*, February 5, 2020, <https://www.businessinsider.com/how-china-managed-build-entirely-new-hospital-in-10-days-2020-2>.

<sup>11</sup> Yoon, “Technocratic.” But see also James Palmer, “China’s Overrated Technocrats,” *Foreign Policy*, July 4, 2019. Palmer argues that the view of the CCP as closely affiliated with engineers is no longer correct since the trend has encountered a sharp decline. In the fifth generation, only one in seven party leaders has an engineering background, and degrees in law and economics have become more prevalent. <https://foreignpolicy.com/2019/07/04/chinas-overrated-technocrats-stem-engineering-xi-jinping/>

<sup>12</sup> Wu et al., “Market-driven,” 559–569.

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<sup>13</sup> Amy Hawkins, “Unsafe at The Top: China’s Anti-Graft Drive Targets Billionaires and Bankers,” *The Guardian*, April 19, 2023, <https://www.theguardian.com/world/2023/apr/19/unsafe-at-the-top-chinas-anti-graft-drive-targets-billionaires-and-bankers>

<sup>14</sup> Li, *China*, 15

<sup>15</sup> Li, 15.

<sup>16</sup> Laibman et al., “Democratic,” 116–136.

<sup>17</sup> Samothrakis, “Artificial,” e0257399.

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